



IRVIN

Air Chutes

Symbols of Safety





- New modern, daylight structure of the Irving Air Chute Co., Inc., at Buffalo, N. Y.
This building houses its main office and factory.

IRVIN

AIR CHUTES

SAFETY PARACHUTES FOR
AEROPLANES, BALLOONS, DIRIGIBLES

THE STANDARD EQUIPMENT FOR UNITED
STATES ARMY, NAVY, MARINE CORPS;
BRITISH AIR MINISTRY; MANY OTHER GOV-
ERNMENTS AND NUMEROUS COMMERCIAL
COMPANIES THROUGHOUT THE WORLD.

MANUFACTURED BY
IRVING AIR CHUTE CO., INC.



Main Office—

1670 JEFFERSON AVENUE, BUFFALO, N. Y.,
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BUFFALO, NEW YORK; FT. ERIE, ONTARIO,
CANADA; GLENDALE, CALIFORNIA; LETCH-
WORTH, HERTS, ENGLAND



Col. Charles A. Lindbergh . . .

Leading member of the Caterpillar Club*, that organization composed of aviators who have been saved to life and service through use of IRVIN Air Chutes. Col. Lindbergh, prior to his Trans-Atlantic flight, had been saved on four different occasions by use of his IRVIN Air Chute.

*For partial list of members, see pages 33-56 hereof.

IRVIN—"Symbol of Safety"

THE IRVIN Air Chute has been developed and perfected to fill the urgent need for a reliable and practical life-saving means for use from lost or disabled aircraft, and is the result of many years of research and test by both the Engineering Division, United States Air Service, and the Engineering staff of the Irving Air Chute Company.

Although the parachute itself is not a modern invention, it is only within very recent years that the freely practical "Irvin" type, combining every safety device, has been developed, perfected, and made generally available.

As a matter of fact, the Montgolfier Brothers, who invented the balloon in 1783, also experimented with parachutes, using sheep to test the safety of their apparatus. There is a record dated 1797 concerning the exploit of a man named Garnerin, who made a safe descent by parachute from a balloon. He repeated this success in England in 1802, jumping from a height of 8,000 feet. His parachute was suspended in folds from the basket of the balloon and not packed neatly in a container, as is the modern type. It had no air vent which is necessary to prevent oscillation and therefore Garnerin's descent was most unpleasant both for himself and for those who watched him.

However, little progress was made in perfecting the parachute as an infallible life-saver until the avoidable wastage amongst aviators during the last European War drew the attention of the authorities to the need for such equipment to be designed as accurately as the aircraft and engine themselves. Many inventors took the field, both in America and Europe, among them being Leslie L. Irvin, who entered the competition organized by the United States Government during 1918. He had made many successful jumps from balloons and aeroplanes before turning his attention to the different problems of getting clear from a disabled aeroplane.

Obviously, a parachute attached to the aeroplane or loosely folded in a sack was of no value to the occupant of a fast-moving vehicle when not under the pilot's control, and until the manual or free type of parachute was designed, no progress was made toward the essential reliability of a life-saving parachute. The Irvin type invention was a "Free Type"

Col. and Mrs. Lindbergh,
IRVIN-equipped, off on
another flight

Col. and Mrs. Lindbergh
enjoyed the utmost confidence when performing their trail-blazing long-distance flights by entrusting their lives, in case of emergency, to the time-proven security of IRVIN Air Chutes.



parachute, so-called because it was carried complete in one unit, attached to the body of the wearer. It was also a "Manually Operated" type, being opened at will by a pull on the ring located at a readily accessible place on the outside of the harness.

From its inception the Irvin Air Chute incorporated many original features. Its advantages over other types were tabulated to form the test to which any competing type should be subjected before approval. No other type has succeeded in equalling the Irvin in performance, which explains its ascendancy throughout the world. Thus has the Irvin Air Chute become the veritable "Symbol of Safety" on every flying field of the world. It is indeed in regular use in no less than 42 countries, in most of which it is the standard equipment of the Naval and Military flying services, including the Air Forces of the United States, the British Empire, Russia, Poland, Roumania, Yugo-Slavia, Spain, and many others.

Today, life-saving in the air has become universally recognized to be of the utmost importance, not alone from a humane—but also from a practical and financial viewpoint as well.

It is realized that whenever an aviator's life is saved in an accident which results from a matter of design or imperfection in construction of aircraft, he can report the points learned to the engineers most interested, who are then enabled to make corrections and improvements which might otherwise remain unknown. This has indirectly resulted in saving many other lives.

Saving of life also means saving of money to the Government, as the cost of training a military aviator is considerable in both money and time.

The IRVIN Air Chute, which is recognized throughout the world as being the most reliable, practical and safest equipment of its kind in existence, is also the least expensive, due to its long life. Many IRVIN Air Chutes that are over ten years old are still in service and in perfect condition.



Early use—U. S. Air Corps Aviators in "Free Drop" from cockpit

Note aviator in right foreground and how "Pilot Chute" holds top of Air Chute out into line of flight, regardless of the position of his body as he falls through space.

When flying was young
—Lt. Walter Lees, U. S.
Air Corps, O. R. C.

Life saved with IRVIN
Air Chute on June 13,
1924, when controls failed
at the extremely low al-
titude of 150 feet.



Parachute Performance

The need for such aerial life-saving equipment was first seriously felt during the latter part of the World War and was considered of such importance by the United States Air Service that a Board of Aeronautical Engineers was appointed to study all existing types of parachutes. After thorough investigation and exhaustive tests this board selected and developed the type most suited to their needs.

At this time the IRVIN Air Chute, already recognized in the United States as a reliable and practical safety parachute, was submitted for test, as well as were a great many other types of parachutes.

All types were tested to destruction to bring out their weak points. The tests were undertaken in a most thorough manner and under conditions such as might arise in actual service emergencies in order to determine definitely what were the chief points to be considered in parachute equipment and were undoubtedly the most exhaustive tests ever conducted to choose the best type of parachute.

As a result of these tests the IRVIN AIR CHUTE type was found to contain ALL THESE IMPORTANT FEATURES and this was adopted as standard equipment for the United States Air Service early in 1919.

The resulting specifications have now been widely accepted as the practical standard of required performance for all parachutes and are embodied in the following eleven points:

- 1—It must be possible for the aviator to leave the aircraft regardless of the position it might be in when disabled.
- 2—The operating means must not depend on the aviator falling from the aircraft.
- 3—The parachute equipment must be fastened to the body of the aviator at all times while in the aircraft.
- 4—The operating means must not be complicated or liable to foul and must not be susceptible to damage through any ordinary service conditions.



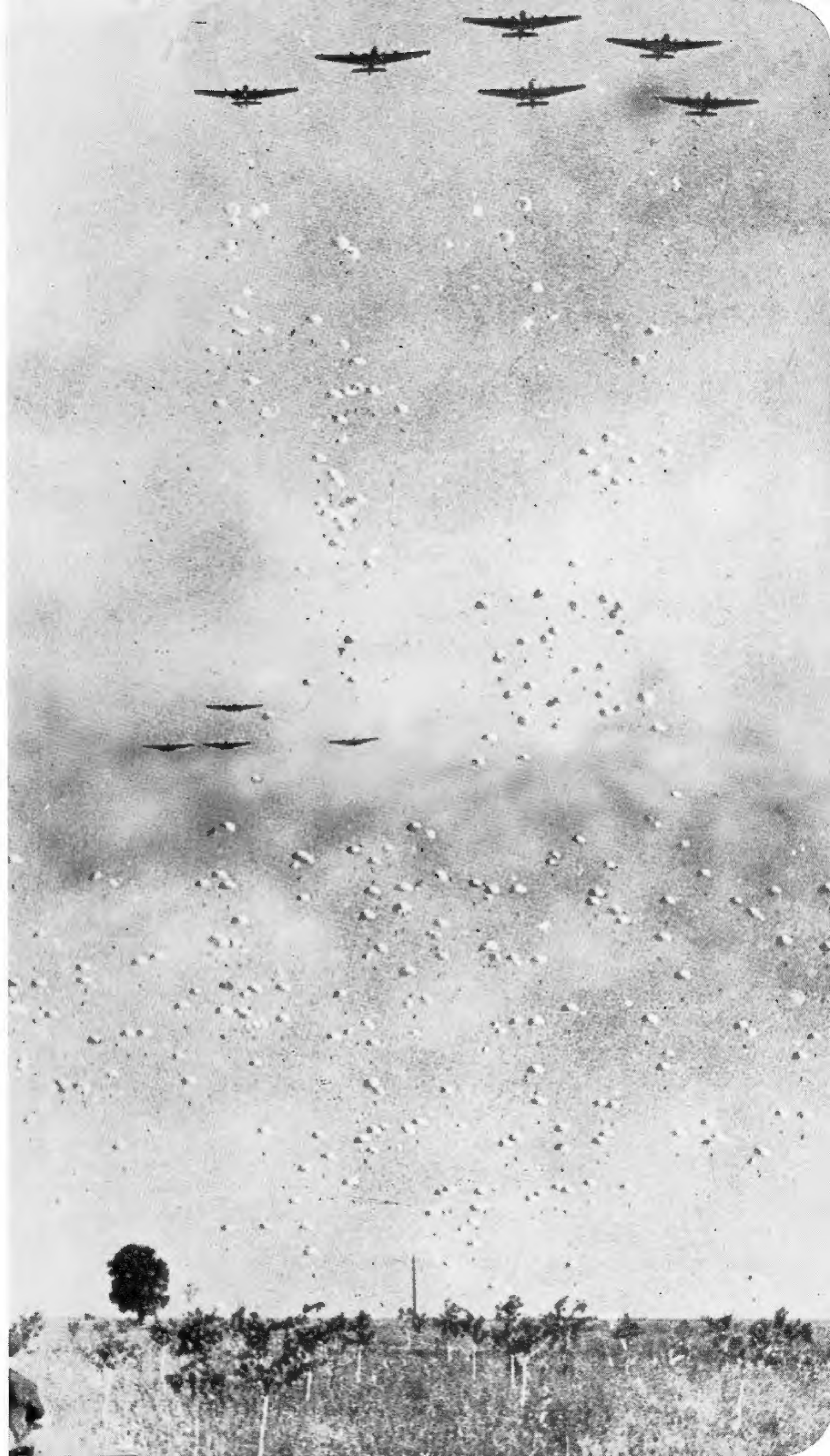
Royalty relies on the
IRVIN Air Chute

H. R. H., the Duke of Windsor, equipped with IRVIN Air Chute, entering his plane on a return flight to England, after a big Game Hunt in Africa.

- 5—The parachute must be of such size and so disposed as to give maximum comfort to the wearer and permit him to leave the aircraft with the least difficulty or delay.
- 6—The parachute must open promptly and must be capable of withstanding the shock incurred by a 200-pound load falling at a speed of 300 miles per hour.
- 7—The parachute must be steerable to a reasonable degree.
- 8—The harness must be comfortable and very strong and designed so as to transfer the shock of opening in such a manner as to prevent physical injury to the aviator. It must also be sufficiently adjustable to fit the largest and smallest person.
- 9—The harness must be so designed that it will prevent the aviator from falling out when the parachute opens, regardless of his position in the air, and at the same time it must be possible to remove the harness when landing in the water or in a high wind.
- 10—The strength "follow through" must be uniform from the harness to the top of the parachute—bearing in mind the old axiom—"No chain is stronger than its weakest link."
- 11—The parachute must be so designed that it can easily be repacked with little time and labor.

No detail of the IRVIN Air Chute has been left merely to theory. Since its first adoption, many improvements have brought it to its present form, universally recognized as the most reliable parachute made. Its practicability and superior design, construction and method of operation have been demonstrated beyond the shadow of a doubt by the actual saving of over 2,000 lives in all parts of the world in every kind of weather and in emergencies covering practically every form of accident, such as wing collapse, collision, control failure (even at such a low altitude as 150 feet), engine failure during a night flight with no proper landing place, catapulted from aircraft while flying at high speeds, when lost in a fog, as well as spins, nose dives, etc.

- Mass Parachute Jumping. One European nation illustrates the training and preparing for the probable mass use of parachutes in future military operations.





"Jump-Off" from Wing
of Airplane

Note right hand about to pull Rip-Cord. Back pack has not yet opened. In emergency, if necessary, aviator can make long "free drop" away from plane before opening his IRVIN Air Chute.

IRVIN AIR CHUTE Operation

The IRVIN is a Free Type," "Manually Operated" parachute.

It is termed a "Free Type" parachute because it has no attachments whatever to the aircraft and operates entirely independent of the aircraft. It is carried complete in one unit and is strapped to the wearer or carried in some position from which it can be detached instantaneously, and fixed positively to the harness, always worn in flight, so that in an emergency a drop or jump can be made from any outlet that is easiest and most convenient. No avenue of escape is thus cut off as in the case where parachutes are attached to some part of the aircraft, or where their means of operation depend on some attachment to the aircraft.

It is termed a "Manually Operated" parachute because the aviator operates the Air Chute at will by a slight pull on the "Rip-Cord" which is located in a readily accessible place on the harness.

With this method of operation the Air Chute can be released with safety as soon as the aviator finds himself free from the aircraft. All that is necessary is a pull on the "Rip-Cord." However, the Air Chute need not be operated immediately. If he so desires, or conditions require it, such as if there is burning wreckage or any danger that the aircraft is falling in the same line as the aviator, or, in time of war, if there is a risk that he will be followed down by enemy aircraft, he can make a long "free drop" before opening his Air Chute. The design and construction of the harness prevents any bodily injury from the opening shock. Several

thousand such drops have been made successfully, including delayed openings up to from as much as five miles in height.

Such a delayed opening assumes that there is sufficient altitude for this maneuver. Where undertaken, it is of interest to record that a man of average weight reaches his terminal velocity of not more than 120 miles an hour after falling 1,200 feet, which occupies a time of approximately 11 seconds. The rate of fall thereafter is fairly constant, varying according to the position of the individual. There is no tendency to become stifled or lose consciousness during a delayed drop and, therefore, the action of pulling the "Rip-Cord" to open the Air Chute can be delayed until the aviator is within a few hundred feet of the ground if such a course is essential.

Ordinarily, other conditions permitting, it is usually better practice to bring the Air Chute into operation as soon as possible after leaving the aircraft in order to prepare for the landing.

The advantages of this method of operation, especially for military aviators, are nevertheless clearly apparent. Caution: as important as this technique is becoming in military actions, it should nevertheless be clearly recognized that long free falls, with delayed operation of the chute at heights of less than 1000 feet above the ground, require specialized training in this particular in order to accurately judge the proper distance at which to release the chute.

The average time required for the Air Chute to completely open and assume normal descent is approximately one and three-fifths seconds after the "Rip-Cord" has been pulled. It withstands the shock of a 600-pound load when released at 100 miles per hour and withstands the shock of a 200-pound load at a speed of 300 miles per hour.

In addition to saving many lives in emergencies, which is the supreme test of any life-saving equipment, the IRVIN Air Chute has further demonstrated its remarkable performance without failure, in thousands of tests conducted under conditions simulating those that would be encountered in actual service. Over 150,000 "live" drops have been made with the IRVIN type parachute with which have been established all parachute records.

Following its use, the Air Chute is easily folded and packed in its container without special tools or equipment.



"Lift-Off" from Navy
Plane over Pearl
Harbor, Hawaii

By this method, the individual climbs out on wing, pulls Rip-Cord and parachute opens, lifting him off into space.



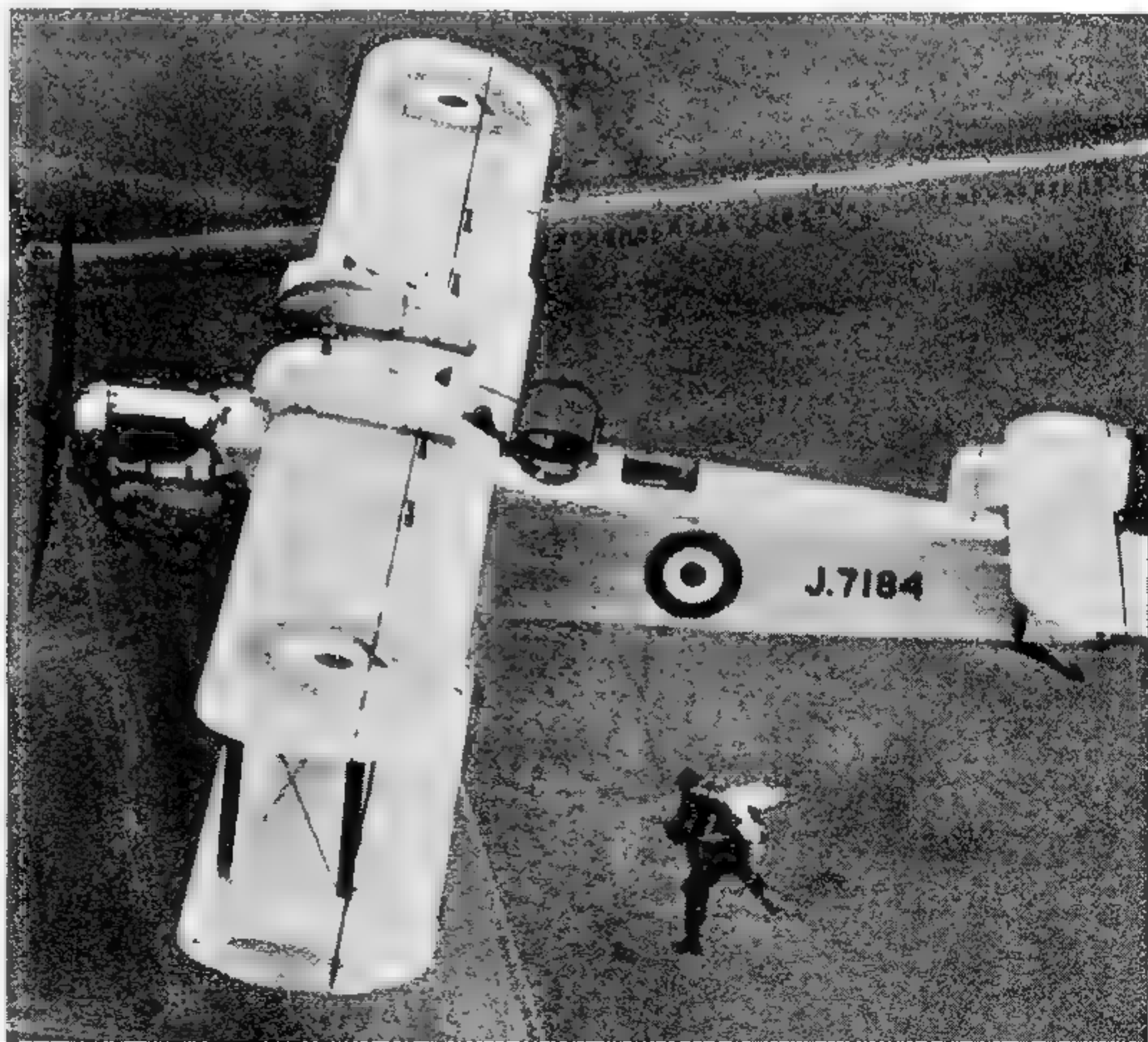
Standard Equipment for
Years — IRVIN Air
Chutes in Action.

Six members of the British Royal Air Force make exhibition jumps simultaneously from bombing planes. IRVIN Air Chutes are standard equipment for all British Air Forces.

Training or Exhibition Descents

When practising or making descents in training or for exhibition purposes the "lift off" method may be used to get clear of the aircraft. The aviator takes up his position at some point on the wings before jumping, taking care to be far enough outboard to clear the tailplane and any other obstructions directly in the rear. When the "Rip-Cord" is pulled the Air Chute spills out and the force exerted by the air on the Chute is sufficient to "lift off" the wearer, pulling him to the rear and in the line of flight.

This method is used by the Air Forces of many Governments to familiarize their personnel in the use of IRVIN Air Chutes.



Individual Training
Jump with IRVIN
Air Chute

Close view of jumper just after leaving cockpit in rear of training plane. Note parachute canopy about to open.



Experimental Jump from Transport Plane by U. S. Navy

United States Navy aviators jumping from transport airplane near Washington, D. C., in experiment to determine how quickly in emergency such a plane could be emptied. One aviator is falling, another can be seen following through doorway, with remainder in transport ready to follow in quick succession.

Jumping Clear

No rules can be drawn up on the best method of jumping clear from a disabled aircraft. One thing must be remembered always, "get clear of the aircraft before pulling the Rip-Cord". Nevertheless a study of the occasions that have brought into existence the Caterpillar Club (see pages 33-56) show a surprising number of lives saved in most difficult predicaments and by persons, both men and women, with no previous parachute experience, some of whom indeed were wearing chutes for the first time.

Pulling the "Rip-Cord"

At no time whatever should the "Rip-Cord" be pulled except after jumping or when entirely clear of all parts of the plane.

To insure this primary safety consideration, the user should *never* take hold of the "Rip-Cord" in the ship and only grasp it *after* having jumped free, entirely clearing all parts of the plane.

Then, a simple, quick pull on the "Rip-Cord" handle, immediately releases the parachute into instant operation.

Always Dependable —
"Split-Second" Action with
an IRVIN

IRVIN Air Chute instant after pulling Rip-Cord, which can be seen in aviator's right hand. Note orderly arrangement of suspension lines within the container. These pay out in proper sequence as the parachute opens.

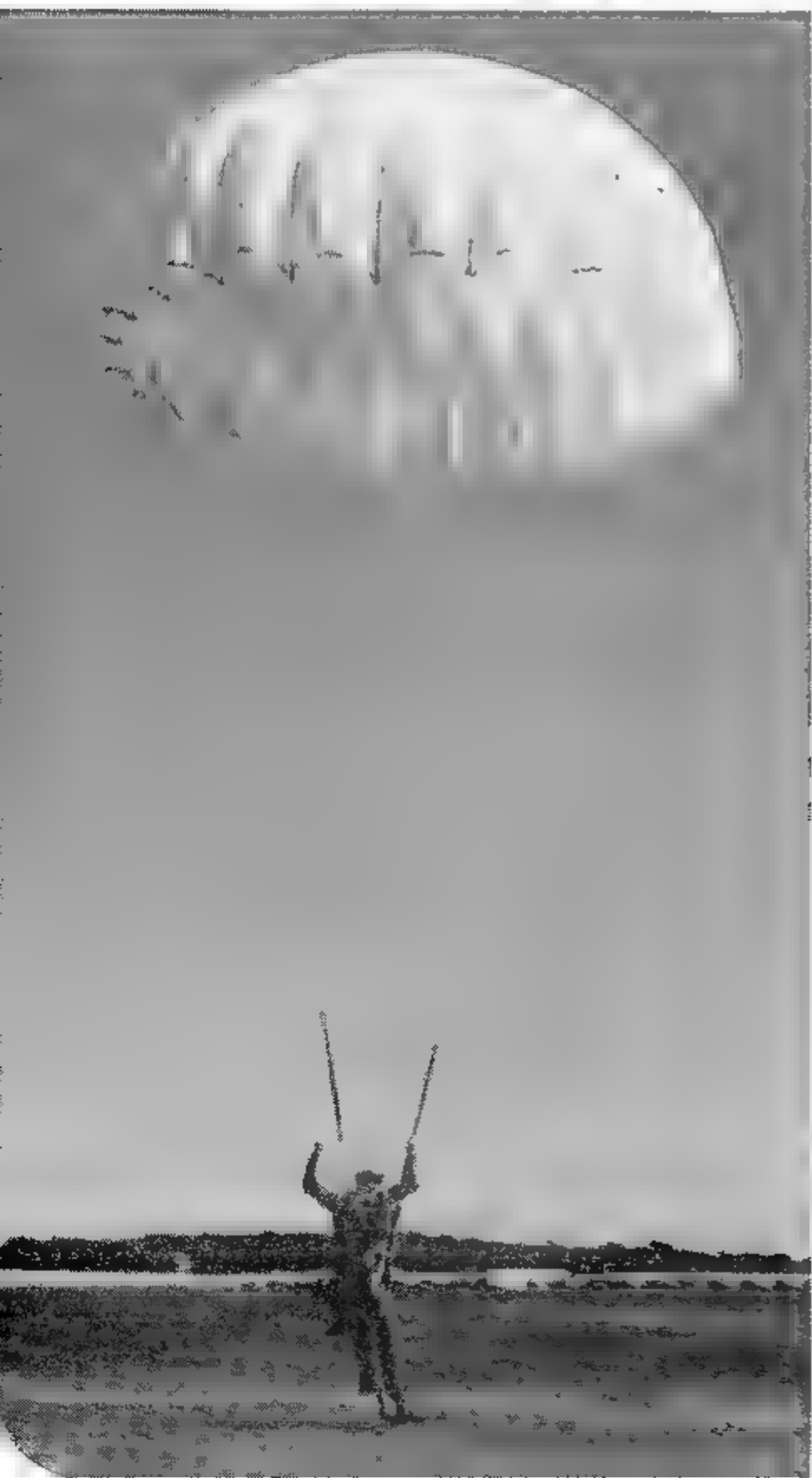


Position During Descent

The aviator will find that his natural position in the harness is similar to that of sitting in a swing. When too far forward for greatest comfort, position can be improved by placing the thumbs in the seat strap beside each leg and pressing downward, thus pushing the body upward and back into the harness. A movement in the other direction is equally simple.

Side Slipping

It is possible to change the gliding angle of the Air Chute by side slipping, if there is any danger of landing on obstructions, such as buildings or trees. The rate of descent is increased, so that this maneuver should not be attempted close to the ground, except as a last recourse.



Facing Direction of Drift

It is advisable to face the direction of drift during descent, as a better landing can thus be effected. To do this, grasp the risers above the head, lift your body and then sharply turn it in the direction you wish to turn, then release the risers, dropping your weight which rotates the Chute in that direction. As in side slipping, this should not be attempted too close to the ground.

Landing

Flex the knees slightly but not too much, relax, land limber and loose—and don't try to stand erect but let the body follow its natural tendency of direction and motion as you contact the earth.

In picture at left, note how gently the aviator's feet touch the ground. The patented IRVIN Harness permits him to further ease his landing by grasping the harness webs over his head and pulling against the canopy as his feet touch ground. Thus, the IRVIN Air Chute provides an easier landing than other parachutes with a canopy of the same diameter and rate of descent.

IRVIN AIR CHUTE Types

The design and construction of the IRVIN Air Chute is the same for all sizes, although it is packed in various types of containers worn on various parts of the body.

Canopy Sizes

To meet various requirements, IRVIN Air Chutes are made in two sizes as follows:

24 FEET in diameter, for general service use.

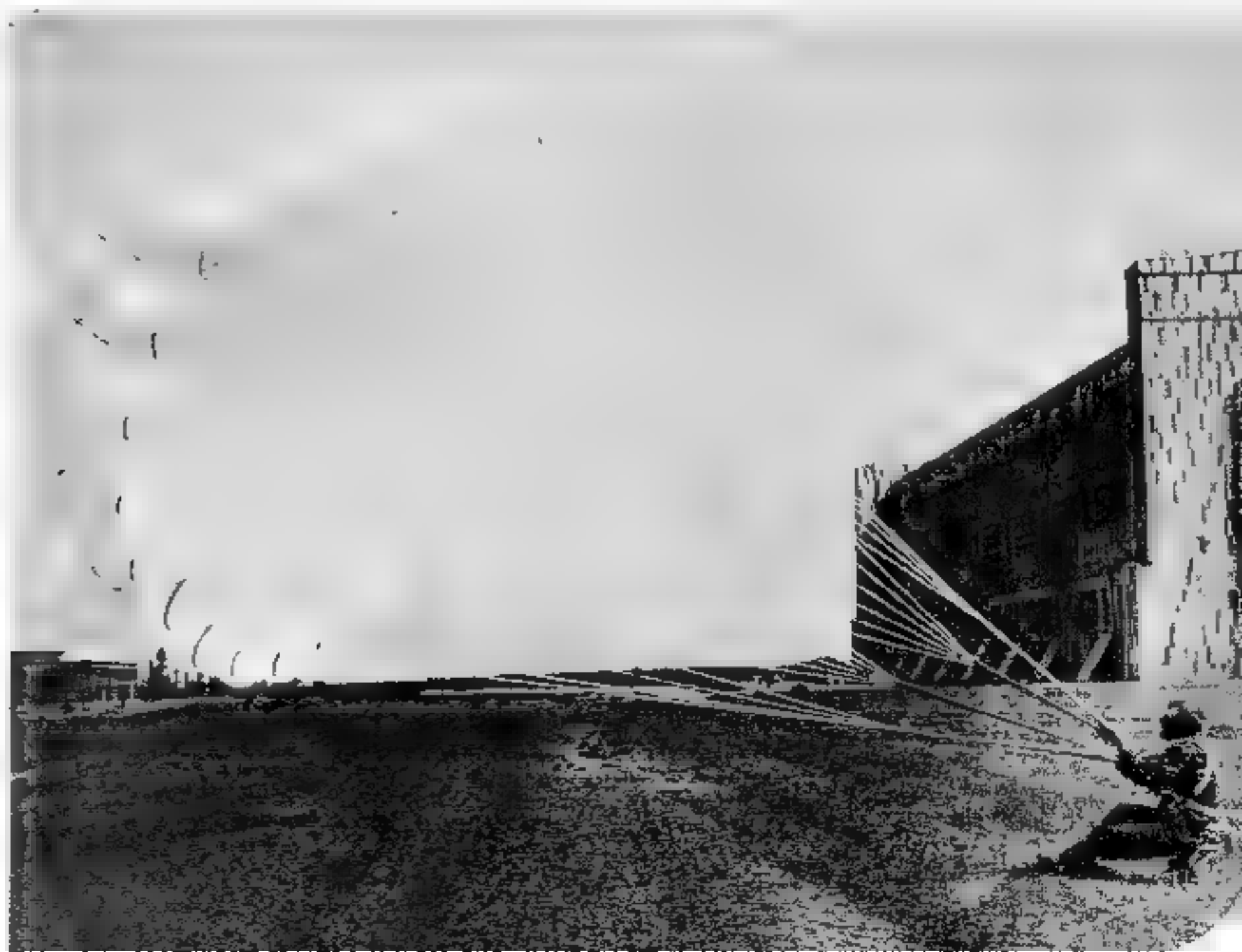
28 FEET in diameter, for exhibition and training jumps.

The 24-FOOT AIR CHUTE is the standard for general service use, due to its moderate rate of descent combined with its small and compact size. This has been adopted by many governments as standard equipment for their Air Forces.

It is known as the "Service Parachute" and is packed in five types of containers, namely the "Seat Pack," "Straight Back Pack," "Form-Fitting Back Pack," "Quick Connector Pack" and "Chair Chute". (See pages 17 to 28). This size of CHUTE, complete with harness and any of the types of containers mentioned, weighs approximately eighteen pounds. The average rate of descent is but 16 feet per second.

The 28-FOOT AIR CHUTE, ordinarily manufactured in the "Straight Back Pack," if so desired may also be supplied in any of the other packs. This, having a slower rate of descent, is especially for use in exhibition and training jumps and as the regular service parachute in some countries having flying fields at extremely high altitudes. Its average rate of descent is but 12 feet per second.

Inflated "Canopy" . . .
Showing a demonstration
of an open canopy
in a ground wind.



Materials and Parts

The FABRIC used in the Air Chute body is a high grade silk that has been developed by the Irving Air Chute Company after extensive scientific research and tests to determine what fabric was best suited to withstand the severe strain likely to be encountered in service emergencies. Being pure silk, without any artificial loading, this special fabric affords the greatest possible strength per unit of weight. Also, being entirely free of all substitute materials, it is subject to the least active deterioration with resulting long life qualities.

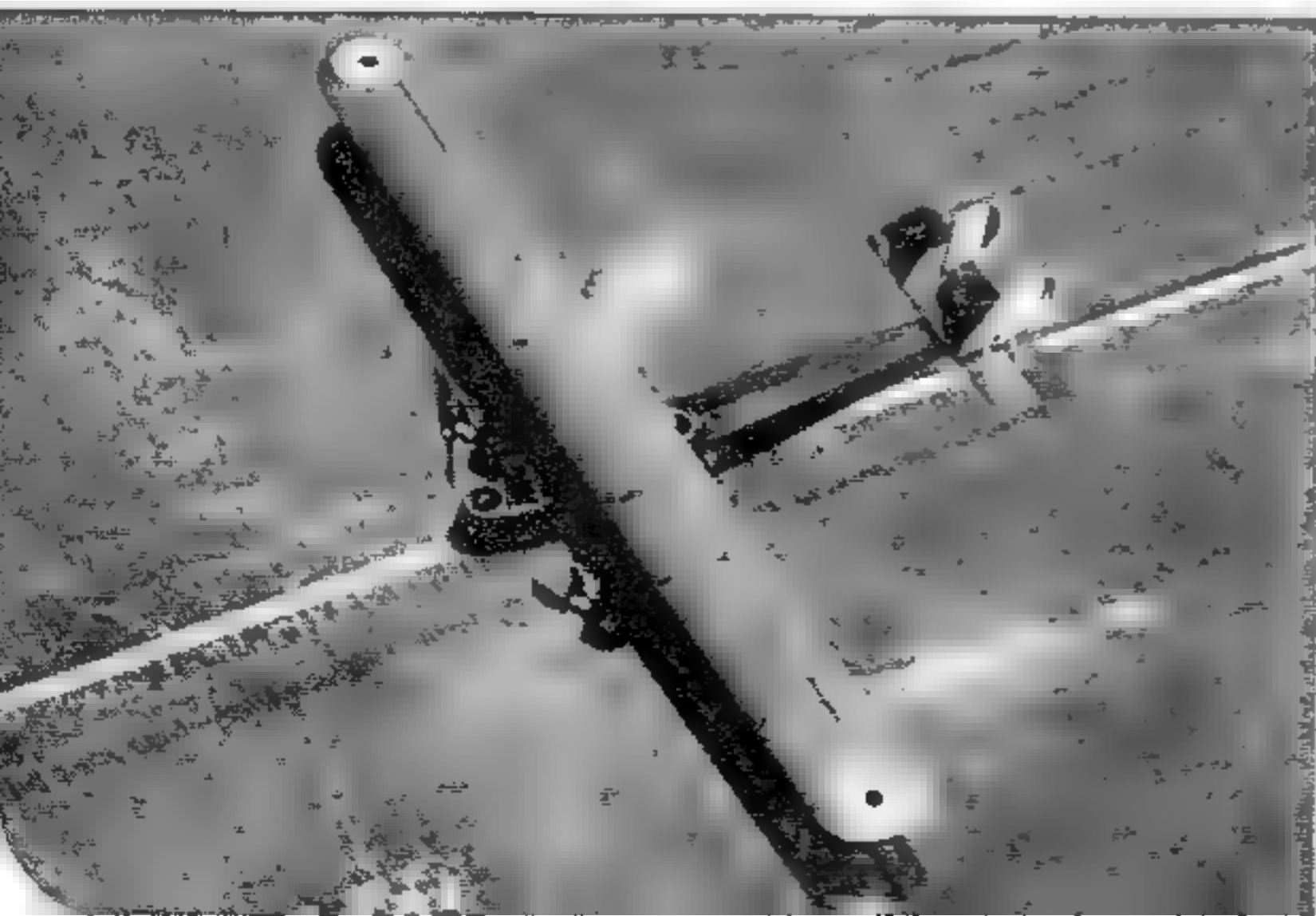
VENTAGE is taken care of by the proper weave of the silk fabric in conjunction with a vent incorporated in the apex of the Air Chute.

The SUSPENSION or shroud LINES are silk cords of 500 pounds tensile strength. These cords are continuous from their point of attachment on one side of the harness to the other, passing through and over the top of the Air Chute. Their entire length is free from knots and splices.

This form of suspension results in a net-work of cords which give great body strength to the Chute itself.

The WEBBING, used in the harness, is specially woven from pure linen yarns to give proper body to hold its shape while at the same time being sufficiently pliable and of adequate tensile strength to provide a high safety factor under the most severe loading conditions.

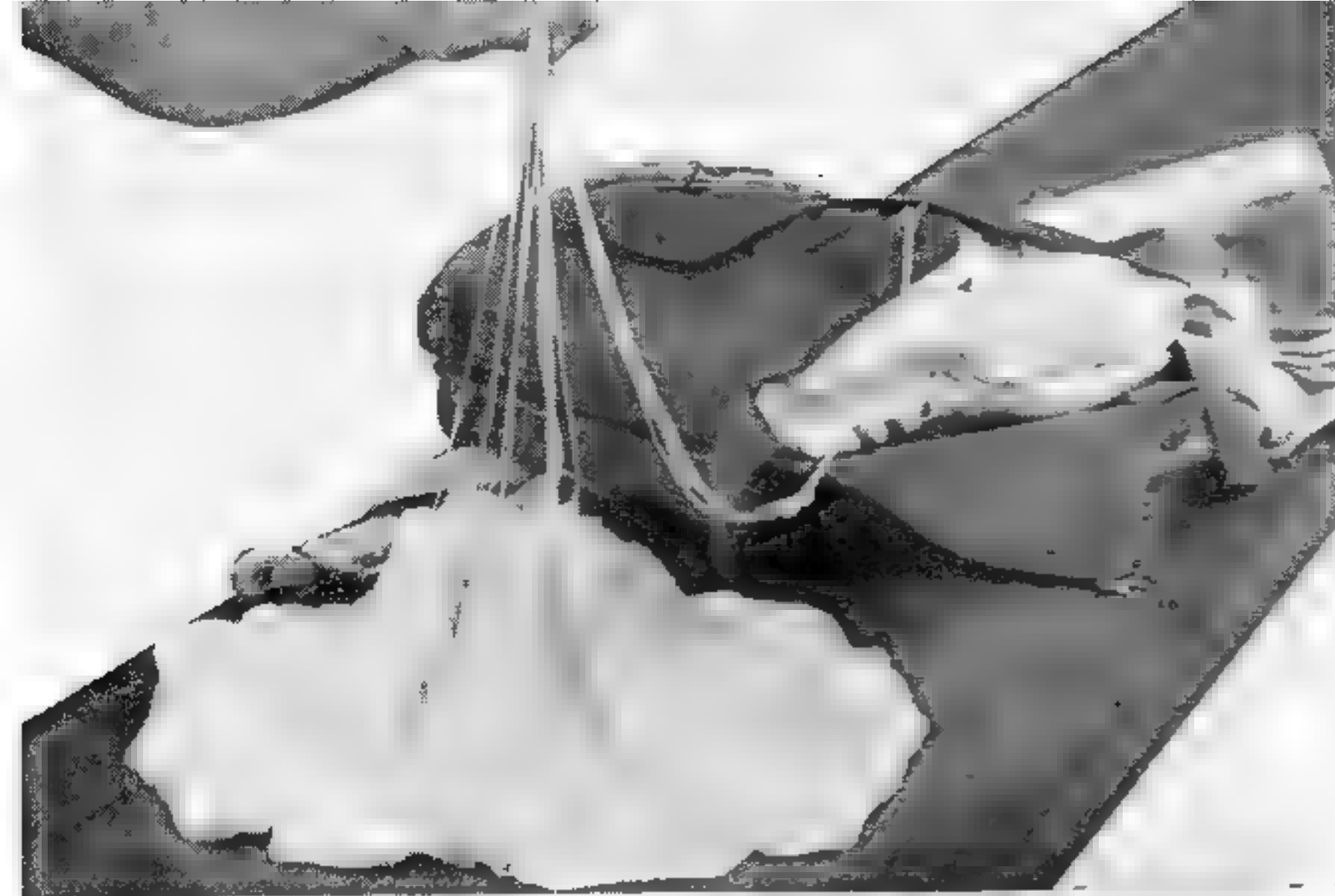
The METAL PARTS are the snaps, connectors and adapter buckles used in securing the harness and adjusting it to the size of the aviator. They are nickel steel with a tensile strength well over 5000 pounds, and are either chrome or cadmium plated.



U. S. Aviators Demonstrate Double "Lift-Off"

Showing action of IRVIN Air Chute at instant Rip-Cord is pulled. Note how "Pilot Chute" holds top of Air Chute out into line of flight, thus effectively preventing any possibility of entanglements and eliminating any chances of aviator falling into the Air Chute as it unfolds and opens.

From the first, this method of jumping has been employed by the Air Forces of several Governments to train the flying personnel in making parachute descents.



Pilot Chute in Container
End of Pilot Chute stowed
in container (upper left
center) separated from
parachute by pack flaps.

Pilot Chute

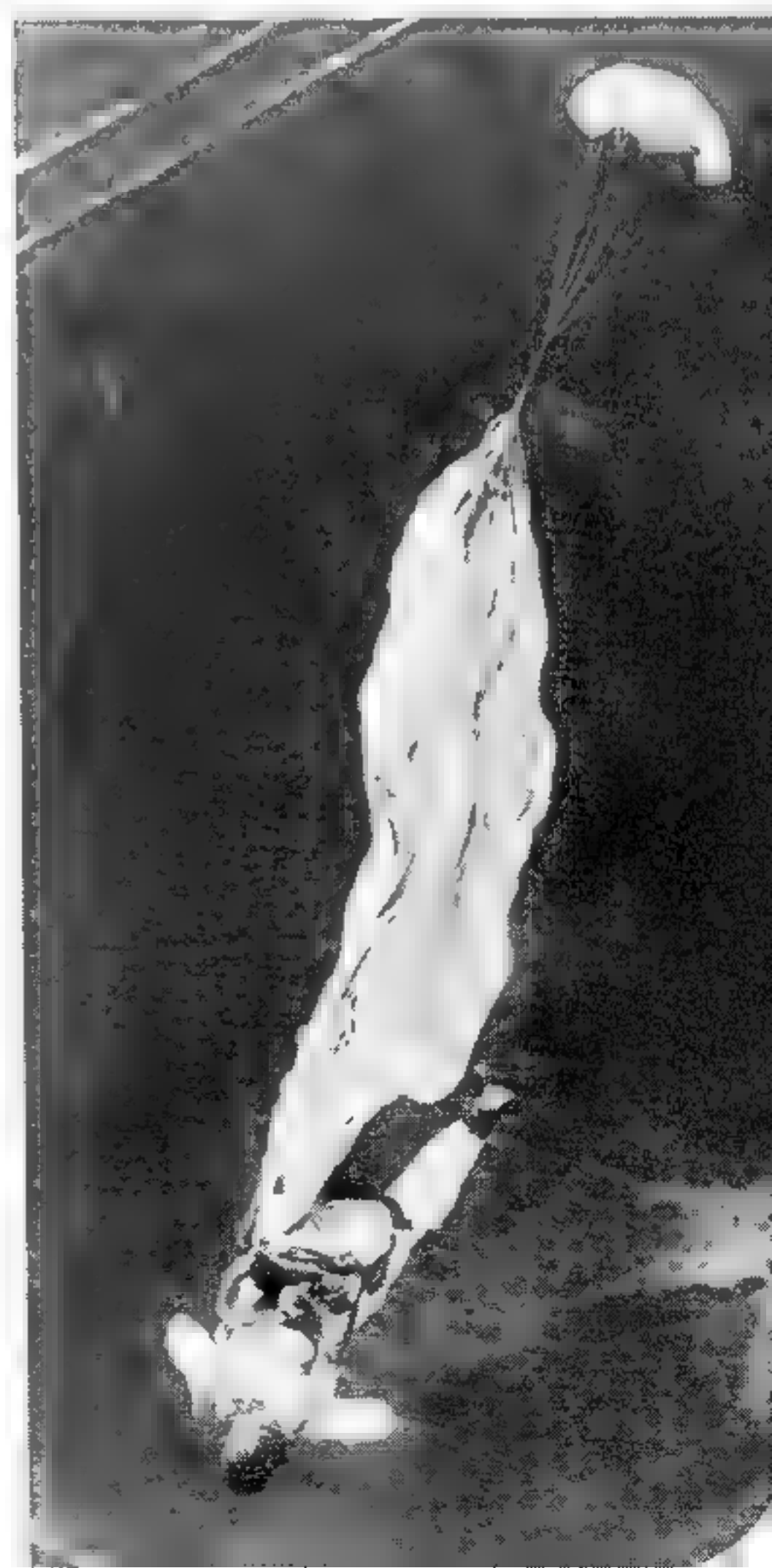
A small miniature parachute termed the "PILOT CHUTE" is attached at the peak or apex of the Air Chute by means of a separate silk cord of 500 pounds tensile strength.

The Pilot Chute is approximately 36 inches in diameter and is constructed with steel ribs and a spring in such a manner that it folds up under tension and is packed thus folded in the container. When the container is opened the Pilot Chute springs out, catches the air and holds the Air Chute out into the line of flight.

A long series of tests demonstrated that while the Pilot Chute is not essential to the successful operation of the Air Chute, it is an added safety feature. If the aviator be falling "free" through space, with the pack underneath his body when he pulls the Rip-Cord, the action of the Pilot Chute provides a positive means of deploying the Air Chute *away* from the body of the aviator, regardless of his position in the air, and thereby eliminates any chances of his falling into and becoming entangled with the Air Chute as it unfolds. The action of the Pilot Chute also permits emergency jumps to be safely made at extremely low altitudes.

The Instant After . . .

Just after pulling the Rip-Cord, showing how Pilot Chute quickly deploys the parachute from the container.



Harn.

The Air Chute is secured to the aviator by a substantial HARNESS which is the result of scientific development to not only assure sufficient strength but also to correctly distribute the opening shock loading to the various parts of the body in just the proper proportions, and is reinforced at all vital parts. The harness is readily adjusted to fit the largest or smallest person and is so designed that no bodily injury can result to the aviator when the Air Chute is opened at high speed. This is not a matter of theory, but has been actually demonstrated a great many times in both emergency and premeditated jumps at the greatest speeds of modern aircraft.

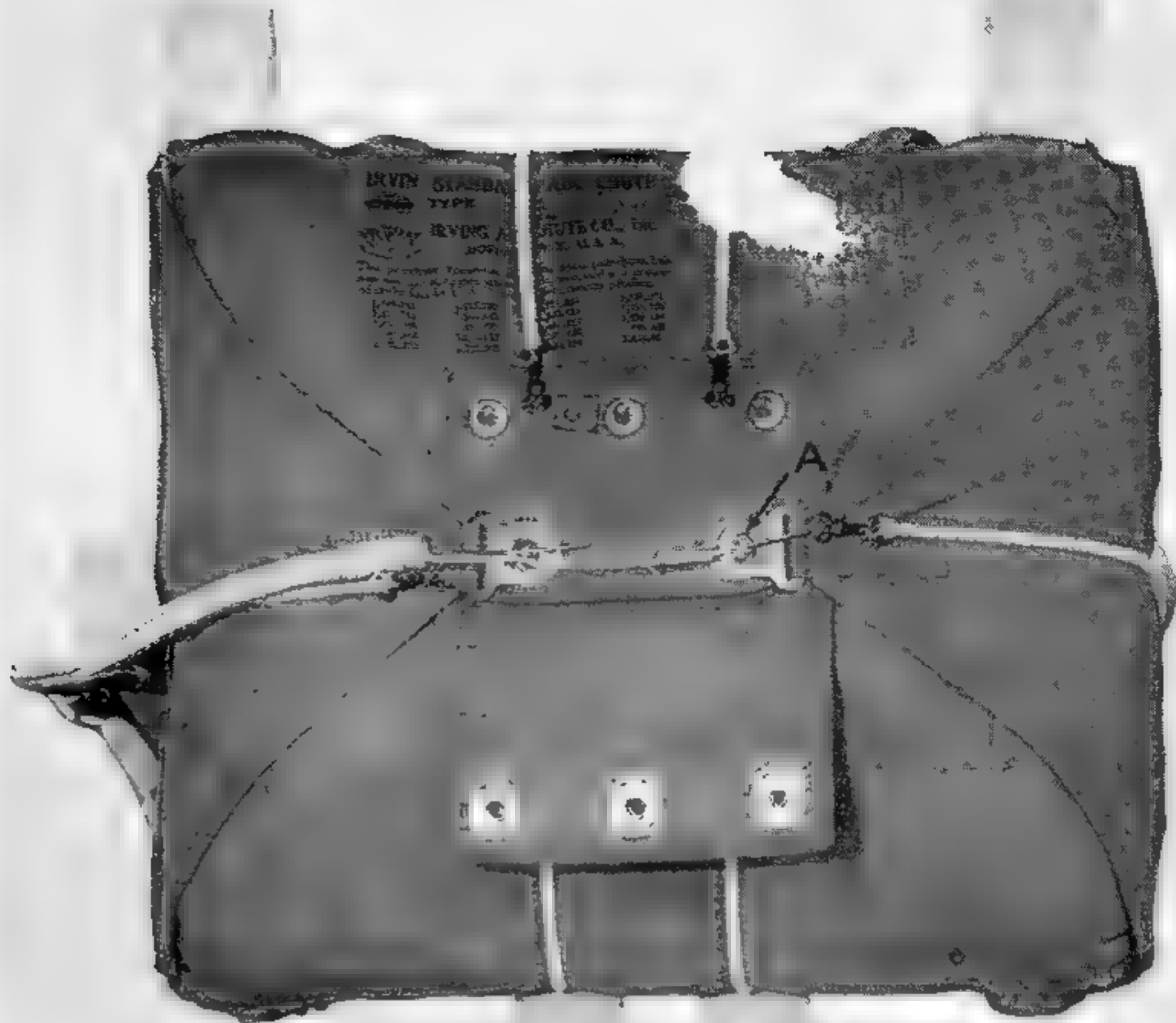
The "QUICK-RELEASE" Harness has been developed for Naval aviators and others who may be forced into an emergency landing in water or other unusual situation which would necessitate instant removal of the complete parachute and harness. However, this type of harness has met with great favor from Army and commercial aviators. Parachutes equipped with this harness are easy to put on and take off; may be left in the seat of the airplanes at all times and attached to aviator after he seats himself.

All the important features that make for safety and reliability in the IRVIN Standard Harness are retained in the Quick-Release Harness by means of an ingenious arrangement of the leg and shoulder straps. These are releasably held together and locked in a central fitting worn in front of the aviator.

To release himself from the parachute and harness, the aviator turns the release disk 90 degrees, which unlocks the fitting. Pressure on the disk then instantly and simultaneously releases all the straps, and permits the harness and parachute to fall from the aviator. While the entire releasing operation is simple and easy, accidental release is impossible as the aviator must deliberately unlock the release disk before it becomes operative.

The results achieved by the IRVIN Quick-Release Harness, together with its combination of constructional features, have not heretofore been obtainable in any parachute harness. After exhaustive tests, the British Air Ministry and other governments have adopted this harness as standard. It is adapted to all IRVIN packs, and is offered as optional equipment.





Parachute Container . . .

Closed about the folded parachute just before the last packing operation of closing final protector flap over the locking pins on the end of the Rip-Cord.

Container

A great deal of experimental work has been carried on in the development of the CONTAINER or pack into which the IRVIN Air Chute is confined, making this the smallest, and simplest of any such equipment in existence. It is fitted with pockets in which to stow the suspension lines and keep them separated from the Air Chute, also with flaps to keep the Pilot Chute separated from the Air Chute.

The Air Chute is easily folded and packed in its container in a simple manner without special tools or equipment. The "RIP-CORD" which secures it in this container is a length of flexible cable with locking pins on one end and a steel ring on the other. The ring is secured in a pocket on the harness in a readily accessible place. Operation of the Air Chute is effected by a pull on the ring, which removes the locking pins from the container, allowing the Air Chute to free itself into the air immediately.

Packs

The five regular types of containers in which IRVIN Air Chutes are provided, are known as: "Seat Pack," "Straight Back Pack," "Form-Fitting Back Pack," "Quick-Connector Pack" and "Chair Chute". Detailed illustrations and descriptions of each are shown on following pages.



IRVIN Seat Pack, with Standard Harness; front view at left. Note "pull ring" at left side. At right, rear view. Note the natural and comfortable position in which the aviator sits on the pack of this type. The backpad automatically holds the harness in proper position.

SEAT Pack

The "SEAT PACK" is used as a seat cushion, thus removing all weight and bulk from the person of the aviator, and is the type in most general use for pilots and the one generally used as the standard equipment by the various government Air Forces.

In this type of pack, as in all others shown on succeeding pages, the Pack itself consists of a flat sheet of canvas, with two side flaps and two end flaps designed to close about the folded parachute. Attached to one side flap are two chrome plated brass cones with a pin hole through their apex (see illustration, "A" on preceding page). On the opposite side flap are two brass grommets, and on each end flap is a plated brass tab grommet. After the pack flaps are folded around the

parachute, the side flap grommets and the end flap tabs are placed over the cones, and the "Rip-Cord" locking pins are inserted through the pin holes in the cones, securely locking the pack flaps about the parachute. Elastic cords are then attached to each pack flap so that when the "Rip-Cord" is pulled $1\frac{1}{4}$ ", all flaps are pulled from around the parachute, leaving it entirely exposed and free to deploy and open. The Pilot Chute, being the last into the pack, is the first out, springs free and pulls the parachute full length, peak first, in position to catch the air and open. The pack is reinforced in all vital parts with various sizes of special tapes and webbing, and has a spring steel wire frame in its bottom which keeps the one side next to the person in proper shape. The false bottom inclosing the wire frame has webbing "pocket" loops attached, into which the suspension lines are stowed in an orderly manner so that they pay out without twisting or snarling as the parachute deploys.

The various models and sizes of IRVIN packs vary in shape and appearance, but all are of the same general design and structure, and provide the same simple and positive operation.

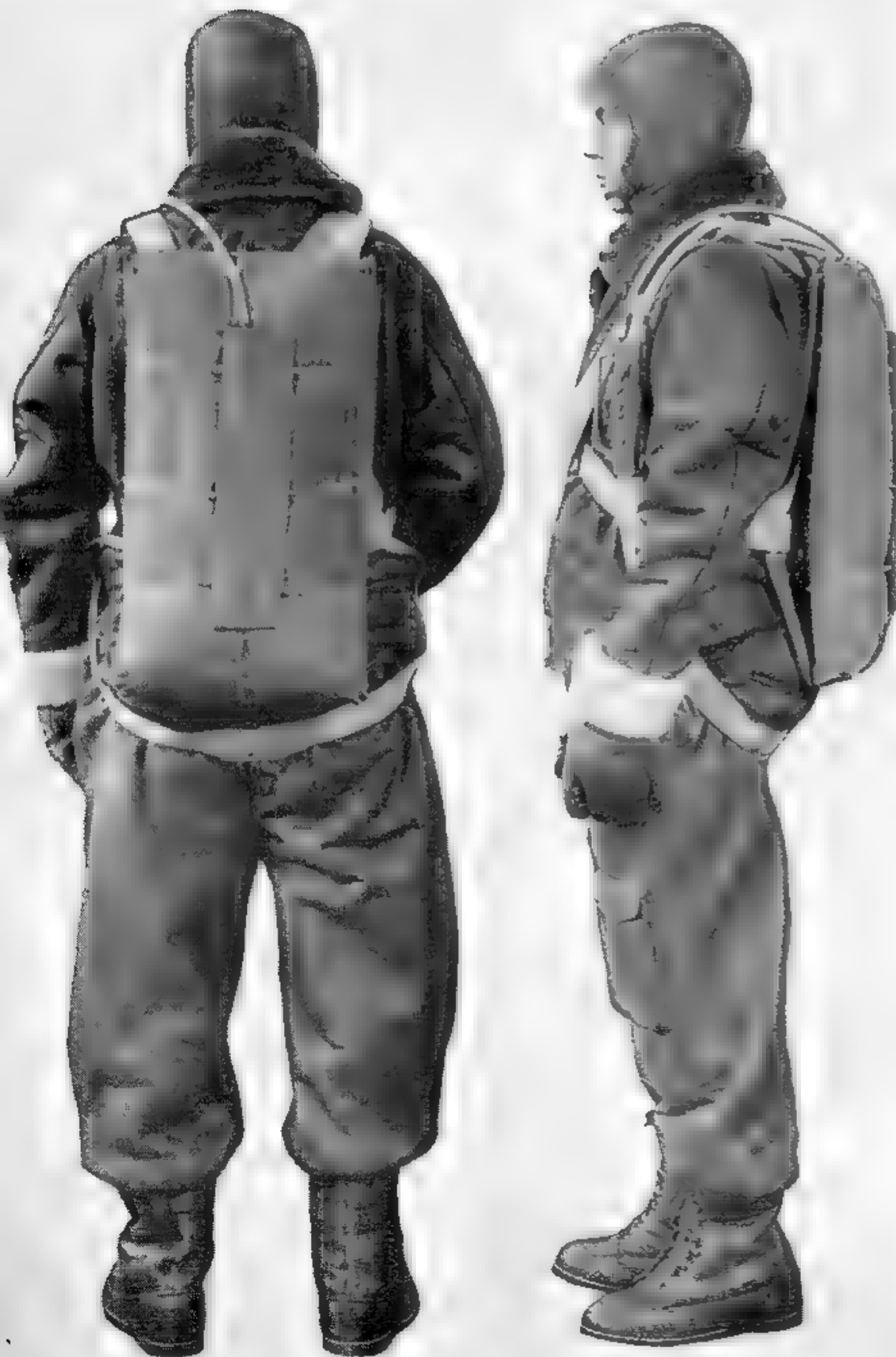
IRVIN Seat Pack, with "Quick-Release" Harness; rear view at left; side view at right. Note simple, compact design of this harness, its comfortable adaptation to the individual.



BACK Pack—*Straight*

The "BACK PACK," as its name implies is carried on the back, and is similar in construction to the seat pack, though being longer and narrower to fit the back. It is easier to get out of a small cockpit, or climb about an aircraft with a Back Pack than with a Seat Pack, and some aviators prefer it for greater comfort on long flights.

At the present time there is a growing tendency to consider these advantages of the Back Pack.



IRVIN Straight Back Pack, shown here with Standard Harness. In the side view, at right, note "Pull Ring" on left breast.

IRVIN Form-Fitting Back Pack.

Note the extremely thin pack and snug fit to the aviator.



BACK Pack—*Form-Fitting*

The "FORM-FITTING BACK PACK" has been developed and perfected for use in aircraft where space is extremely limited.

Some types of open airplanes, both commercial and military, have very small cockpits from which it is easier to escape in emergency with a "form-fitting back pack" parachute. Still other types of open airplanes are so constructed that a "seat pack" parachute raises the pilot or passenger too high for efficiency and comfortable flying.

These difficulties are overcome by the "Form-Fitting Back Pack" which is ideal for use in such airplanes. The pack frame is constructed from a special resilient spring steel wire, ingeniously formed so that the pack fits the contour of the wearer's back. The Air Chute is folded over a greater area, reducing thickness to a minimum, thereby permitting a more ready and easy escape from cramped quarters in emergency. The thin "Form-Fitting Pack" clings closely to the wearer's back and has no projecting corners or parts to catch on the aircraft when climbing from a small cockpit or through a small cabin door.

Like all other IRVIN Air Chutes, the "Form-Fitting Back Pack" has been so designed and engineered that it embodies all the patented safety features that have brought universal recognition to the IRVIN Air Chute as the standard aerial life-saving equipment of the world. It operates in the usual simple way by a pull on the "Rip-Cord".



IRVIN "Quick-Connector"
Pack

Front suspension
type with Standard
Harness.

QUICK - CONNECTOR Pack

The "QUICK-CONNECTOR PACK" has been developed and perfected to provide a safe and reliable life-saving means for passengers and pilots in cabin transport planes, rigid airships and other types of aircraft, the construction of which does not permit the wearing of a parachute while in flight. It is also used as a reserve pack for training purposes in some countries, and by exhibition jumpers.

It is likewise recommended for machine gunners or photographers who may be hampered in their work, by a pack on their person. The "Quick-Connector" harness can be comfortably worn by such persons without affecting their efficiency, the pack itself being placed in a readily accessible place, for immediate use, should emergency arise.

The maximum efficiency of a parachute is best obtained when it is worn on the person at all times while in flight, but when this is impossible, the "Quick-Connector Pack" offers the same protection that is enjoyed by users of Irvin Air Chutes in other types of aircraft.

With this equipment, the pilot or passenger wears only a comfortable harness while in flight. The Air Chute is carried separately and

readily accessible in the "Quick-Connector Pack", usually directly in front of, and above the pilot's or passenger's head or other instantly available point.

In emergency it is only necessary to grasp the pack and place it against the chest, where it is instantly and easily attached to the harness by means of a simple and ingenious connecting device, and the wearer is ready to jump. This connecting device provides for the attachment of the pack to the harness at two points. However, the Air Chute functions safely and perfectly when attached at only one point. Likewise, it functions safely and perfectly if the pack should be turned end-for-end before it is attached to the harness. After attachment the Air Chute is operated in the usual manner by a pull of the Rip-Cord.

The IRVIN Air Chute "Quick-Connector Pack" has been so engineered and perfected that it retains all the many safety features that are contained in other IRVIN Air Chutes. The entire apparatus is extremely simple and its method of attachment and operation is obvious at a glance, therefore no complicated or lengthy instructions for use are necessary. It has been adopted as standard equipment by the U. S. Navy, the British Air Ministry and other Government Air Forces.



IRVIN "Quick-Connector" Pack

Floating type with
"Quick-Release" Har-
ness.



IRVIN
Training Outfit
(Left) with stand-
ard chest reserve
P a c k. (Right)
with Quick - Con-
nector reserve
Pack

TRAINING OUTFIT

For training and exhibition jumps the Training Outfit, consisting of two Air Chutes on one harness, is now very generally used.

The Irvin Air Chute Standard Training Outfit is made up of a 28 ft. parachute in a Straight Back Pack, a 24 ft. parachute in a Chest Pack or a Quick-Connector Pack, and a Harness specially designed to accommodate the two Packs.

In use either Air Chute can be operated independently of the other, or they may be used together during descent.

The IRVIN Air Chute Training Outfit is used as standard equipment by the Air Forces of many Governments to train the flying personnel in making parachute descents.

In Descent . . .

When both packs of Training Outfit, are opened in practice jumps.





Cabin interior, looking aft, of the Stinson Model A, Tri-Motor Private Transport Plane of Mr. Richard J. Reynolds of Winston-Salem, N. C.

PLANE EQUIPMENT

—*"Every Seat With a Chute"*

Airplane manufacturers, as well as individual ship purchasers, are extended every cooperation by our engineering and production departments in working out the application of Irvin Air Chute equipment as they may desire. Our specialized experience in this field is making possible some unusually satisfactory results in installations of the most approved aerial life saving equipment in modern cabin planes, both new and those in service.

The custom-built Irvin Chair Chute is the unit around which such installations are designed. This has been developed to meet the most exacting requirements for refinement of out-of-sight safety, instantly at hand. It provides luxurious, deep-cushioned comfort without the necessity of wearing a harness except in an emergency and just before use.

Yet it should be realized that the Irvin Chair Chute is NOT merely a parachute pack which is substituted for existing chair packs in cabin ships. The Chair Chute is CUSTOM-BUILT into each individual chair and padded with a special material which provides a permanent, resilient cushion effect, completely disguising the presence of a parachute pack.

The chair is then upholstered with the same material used for the finish of the cabin. The Irvin Chair Chute is adaptable to any normal airplane chair, requiring no additional space. In addition it does not interfere with other features of the chair as supplied by the airplane manufacturers. Besides, it is available in any kind and color of upholstery.



CHAIR Chutes

For passengers in modern cabin airplanes, the problem of instantly attaching parachute equipment in a manner at once convenient and comfortable to the wearer, has thus been solved by IRVIN engineering as shown by photographs on this and the opposite page.

The IRVIN Chair Chute with Lap Strap attachment, while particularly designed for women, is equally usable by men and is therefore applicable for general use in transport or cabin passenger planes.

All the characteristics of the original IRVIN Air Chute which has saved some 2,000 lives are embodied in the new IRVIN Chair Chute. Without sacrifice of beauty, comfort or practicability, this design represents a carefully engineered installation, especially adaptable for women's use.

This equipment has been so designed that it adapts itself to all normal airplane chairs, blending nicely with any style, decoration or color of upholstery. Meticulous care and skilled construction has produced a parachute installation which is so inconspicuous and occupies so little space that it appears to be nothing more than a comfortable back in the chair. The complete IRVIN Chair Chute with harness, pad and chair fittings, adds but 16½ lbs. in weight.

This development, in keeping with the prestige of the Irving Air Chute Co., is one which we are justly proud to offer in the advancement of aviation.

At Top: IRVIN Chair Chute installed in comfortable, modern airplane cabin chair. Note that chute, while instantly available, is practically unnoticeable.

At Right: Woman passenger relaxing comfortably in airplane seat, equipped with IRVIN Chair Chute, ready for immediate use.





Fig. I



Fig. II



Fig. III

INSTRUCTIONS - - -

Showing simplicity and ease of operation:

FIG. I: Pull out Side Straps and Pack from under hood. Caution: Do NOT take hold of Opening Handle, marked "H", Fig. II.

FIG. II: Place straps over shoulder: Snap Breast Strap together. Do NOT touch Opening Handle "H", until out of ship.

FIG. III: Fasten Lap Strap together and tighten as shown in Fig. III.—When you rise, Chute comes with you.

JUMP. When free of ship—pull Opening Handle "H" sharply—parachute opens instantly.

In normal flight passengers are oblivious to the presence of the Irvin Chair Chute which affords invisible protection for both passengers and pilots. Yet, if emergency suddenly confronts them, they have a complete Irvin chute instantly at hand, easily and quickly put on, unassisted. If desired, however, the harness may be worn at all times while in flight with perfect comfort and without disarrangement of clothing.

In emergency passengers equipped with Irvin Chair Chutes merely follow the simple directions given above, arise from their seats and jump from the airplane as with ordinary air chutes. A pull on the Rip-Cord—and the Irvin does the rest.





Cabin Planes

Irvin Air Chutes are now available for most types of cabin airplanes—without sacrifice of comfort or appearance. No harness to wear—except in emergencies. No unsightly packs cluttering up the cabin. Everything out of sight—yet instantly at hand if needed. Adapted to any type airplane chair or seat. Supplied in any color and kind of upholstery and custom-built into seats of new or in-service planes.

These Irvin Chair Chutes embody all essential features of the standard Irvin Air Chutes that have been time-tried and service-proved the world over, and in emergency have saved over 2,000 lives.

IRVIN FACTORIES

Back of every Irvin Air Chute are the substantial facilities of the modern factories shown on the inside of the front cover and the following pages. In addition to these, other plants are now in process of construction at other points.

Every resource of efficient equipment adds to the technical effectiveness of Irvin manufacturing methods.

Over all, the personnel of Irvin Engineers includes men of the widest experience in the field of aerial life saving, men who are contributing now as they have in the past, the keen insight and constant study that make the Irvin Air Chute the leader, as well as the pioneer, of this industry.

California Factory—

Modern, daylight plant located at 1500 Flower St., Glendale, Calif.



IRVING AIR CHUTE OF GREAT BRITAIN LTD



English Factory—

Imposing structure of our British subsidiary at Letchworth, Herts, England.

Canadian Factory—

Factory recently completed to serve Canadian parachute needs at Ft. Erie, Ontario.





Servicing and Packing Department. Parachutes must here undergo the most rigid inspection before assembling for use.

Materials Testing Department. All parts which go into IRVIN air Chutes are tested with the intricate devices in this laboratory, before being approved for practical use.

Section of Metal Parts Fabricating Shop. All metal parts used in IRVIN construction are produced under the most exacting and efficient methods possible in modern construction.





Cord-cutting, Harness and Rigging Benches in Main Assembly Room. Ample space assures the most efficient production.

Material Inspection Department. All materials used in IRVIN Air Chutes are passed through the Inspection Department where they must pass the most rigid requirements, before being accepted for use.

Battery of Power Machines in Main Sewing Department. Greatest efficiency is assured in this large, modern, day-light production room of the world's largest parachute plant.



LESLIE IRVIN, Chief Engineer of the Irving Air Chute Co., Inc., first aviator on record to have made parachute descent with a "Free Type." "Manually Operated" parachute. Note that the words "Air Chute" have been used by this company to describe "IRVIN" design

The IRVIN Air Chute takes its name from the pioneer work done in this field by Leslie Irvin



LESLIE IRVIN, equipped with "Quick-Release" Harness and Seat Pack Type of IRVIN Air Chute. Note compact, close fitting design, which provides pack as a comfortable seat for pilot. Excessive bulk is eliminated thereby permitting quick escape from cramped cockpits or through small cabin doors. This harness has been adopted as standard equipment by the British Air Ministry, and is optional for general use.

Mr Irvin has himself made over 100 descents with IRVIN Air Chutes.

“The Caterpillar Club”

IN that remarkable unwritten tradition that is fast building up around the heroic lives and pioneer work of those who fly, nothing holds more affectionate regard than the thought back of the “Caterpillar Club” into which one qualifies as a member when, in an emergency his or her life has been saved by means of the IRVIN Air Chute. In this, the Caterpillar, letting itself down gently to earth on its silken shrouds, has been taken as symbolic of the action of this silken parachute. The names that follow are a partial list of members of this grateful organization.



Partial List of Lives Saved with IRVIN Air Chutes

Successful emergency use of the IRVIN AIR CHUTE has taken place in more than 38 countries, embracing every geographical, weather, atmospheric and emergency condition. Up to February 19, 1937, more than 2000 lives had been saved. Lack of complete data prohibits publication of a complete list here, however, a partial list follows. Those saved in the United States are presented first, after which the names are listed chronologically under heading of country in which saved.

UNITED STATES

1919

July 21	HENRY WACKER
Chicago, Ill.	Civilian
July 21	JOHN BOETTNER
Chicago, Ill	Civilian

1920

Aug. 24	WILLIAM O'CONNOR
McCook Field, Ohio	Civilian

1922

Oct. 20	HAROLD R. HARRIS
McCook Field, Ohio	1st Lieut., U.S.A.C.
Nov. 11	FRANK B. TYNDALL
Seattle, Wa.	1st Lieut., U.S.A.C.

1924

April 23	WILFRED BOTTOMFIELD
Kelly Field, Texas	Civilian
May 13	E. H. BARKSDALE
Fairfield, Ohio	1st Lieut., U.S.A.C.
June 5	W. W. WHITE
Kelly Field, Texas	1st Lieut., U.S.A.C.
June 13	WALTER LEES
Dayton, Ohio	2nd Lieut., O. R. C.
June 18	JOHN A. MACREADY
Dayton, Ohio	1st Lieut., U.S.A.C.

July 2	S. E. INGERSOLL
Pensacola, Fla.	Lieut., U.S.N.
July 11	A. R. CRAWFORD
Kelly Field, Texas	2nd Lieut., U.S.A.C.
Aug. 29	W. E. GOGGIN
Bolling Field, D.C.	Private, U.S.A.C.
Aug. 29	L. L. KOONTZ
Bolling Field, D.C.	1st Lieut., U.S.A.C.
Oct. 16	W. M. COLES
Coronada, Cal.	Gunner, U.S.N.
Nov. 4	W. E. LYND
Kelly Field, Texas	1st Lieut., U.S.A.C.

1925

March 6	C. D. McALLISTER
Kelly Field, Texas	1st Lieut., U.S.A.C.
March 6	CHARLES A. LINDBERGH
Kelly Field, Texas	2nd Lieut., U.S.A.C.R.
March 15	PAT MURPHY
Marshall, Mo.	Civilian
March 20	FRANK D. HUNTER
Dayton, Ohio	1st Lieut., U.S.A.C.
April 6	C. V. MIX
Quantico, Va.	Sgt., U.S.M.C.
April 10	T. THAD JOHNSON
Eaglesmere, Pa.	1st Lieut., U.S.A.C.
May 22	C. H. SHILDHAUER
Lakehurst, N. J.	Lieut., U.S.N.

UNITED STATES (Continued)

June 2 CHARLES A. LINDBERGH
St. Louis, Mo. 2nd Lieut., U.S.A.C.
July 4 MRS. IRENE McFARLAND
Cincinnati, Ohio Civilian
Aug. 17 K. J. GREGG
Laverina, Texrs 2nd Lieut., U.S.A.C.
Oct. 1 F. O. RODGERS
Langley Field, Va. 1st Lieut., U.S.M.C.
Oct. 10 FRED C. NELSON
St. Louis, Mo. 1st Lieut., U.S.A.C.
Nov. 11 LEONARD S. FLO
Dayton, Ohio 1st Lieut., U.S.A.C.
Nov. 11 JOHN McGLYNN
Dayton, Ohio Private, U.S.A.C.

1926

March 5 FRANK D. HUNTER
Selfridge Field, Mich. 1st Lieut., U.S.A.C.
March 24 E. H. BARKSDALE
McCook Field, O. 1st Lieut., U.S.A.C.
May 10 HORACE M. HICKAM
Langley Field, Va. Major, U.S.A.C.
May 10 HAROLD GEIGER
Langley Field, Va. Major, U.S.A.C.
June 2 S. E. INGERSOLL
Pensacola, Fla. Lieut., U.S.N.
June 17 J. T. HUTCHINSON
McCook Field, O. 1st Lieut., U.S.A.C.
June 17 PAUL STANLEY
McCook Field, O. Civilian
July 5 WALTER M. WILLIAMS
Nashville, Tenn. Capt., Tenn. N. G.
July 5 JOHN W. McKENZIE
Nashville, Tenn. Lieut., Tenn. N. G.
July 21 V. E. BERTRANDIAS
Glenbourn, Md. 1st Lieut., U.S.A.C.
Aug. 8 JOHN I. MOORF
Austin, Texas 1st Lieut., U.S.A.C.
Sept. 16 CHARLES A. LINDBERGH
Ottawa, Ill. Pilot, Air Mail
Sept. 17 C. L. WILLIAMS
Honolulu, T. H. 1st Lieut., U.S.A.C.
Sept. 26 H. E. LAFAYETTE
Trenton, Mich. Civilian
Nov. 8 CHARLES A. LINDBERGH
Covell, Ill. Pilot, Air Mail
Dec. 23 WARREN D. WILLIAMS
Bowling Green, O. Pilot, Air Mail

1927

Jan. 18 RODERICK M. KRIDER
Kelly Field, Texas Cadet, U.S.A.C.
Jan. 18 GEORGE T. SCHLEPPY
Kelly Field, Texas Cadet, U.S.A.C.
Feb. 3 LAURENCE C. CRAIGLER
Brooks Field, Texas 1st Lieut., U.S.A.C.
Feb. 8 FABRAIN L. PRATT
Brooks Field, Tex. Capt. (MC), U.S.A.C.
Feb. 15 CARL G. ASHLEY
Galveston, Texas Private, U.S.A.C.
Feb. 24 O. M. DARLING
San Diego, Cal. Aviation Pilot, U.S.N.

March 28 E. B. WILKINS
Augusta, Ga. Lieut., U.S.A.C.
March 28 G. F. LAWHON
Augusta, Ga. A.M.M., Ic., U.S.N.
April 15 S. A. McCLELLAND
Anacostia, D.C. 1st Lieut., U.S.M.C.
April 27 S. W. TOWLE
Champaign, Ill. 1st Lieut., U.S.A.C.
May 4 HAWTHORNE C. GRAY
Golden Gate, Ill. Capt., U.S.A.C.
May 13 GEORGE G. FINCH
Atlanta, Ga. 1st Lieut., U.S.A.C.
May 28 B. M. BRIDGET
Columbus, Ohio 1st Lieut., U.S.A.C.
May 28 L. H. BRERETON
Columbus, Ohio Major, U.S.A.C.
May 28 F. P. MILLER
Columbus, Ohio Sgt., U.S.A.C.
May 28 G. M. TAYLOR
Columbus, Ohio Sgt., U.S.A.C.
June 20 E. A. PETERMAN
Los Angeles, Cal. 1st Lieut., U.S.A.C.
June 20 W. O. COOPER
Los Angeles, Cal. Capt., U.S.A.C.
July 10 ART SMERTZ
Salt Lake City, U. Civilian
July 13 B. J. CRAYCRAFT
Rantoul, Ill. R.O.T.C., U.S.A.C.
July 13 C. B. WHITNEY
Salt Lake City, U. 1st Lieut., U.S.A.C.
July 13 P. L. WOODRUFF
Salt Lake City, U. Sgt., U.S.A.C.
Aug. 15 ROBERT SEGER
Morton Grove, Ill. Civilian
Aug. 23 JOHN E. HEYWANG
Lake Sebasticook, Me. Civilian
Sept. 16 VALENTINE GEPHART
Grampoin, Fla. Civilian
Sept. 25 FRITZ H. GRIFNO
Genoa, Texas Sgt., U.S.A.C.
Oct. 5 A. H. GILKESON
Edgewood Arsenal, Md. Major, U.S.A.C.
Oct. 23 CHARLES R. BOWMAN
Tehachapi Mts., Calif. Civilian
Oct. 25 F. C. SUTTON
San Diego, Cal. Lieut., U.S.N.
Oct. 27 J. D. CLEVELAND
Kelly Field, Texas Cadet, U.S.A.C.
Oct. 27 E. A. SANBORN
Kelly Field, Texas Cadet, U.S.A.C.
Nov. 9 D. H. STUART
Norfolk, Va. 1st Lieut., U.S.A.C.
Nov. 9 F. P. MILLER
Norfolk, Va. Staff Sgt., U.S.A.C.
Nov. 9 A. B. JEWELL
Norfolk, Va. Tech. Sgt., U.S.A.C.
Nov. ERNEST E. DRYER
New Mexico Civilian
Dec. 12 GEORGE W. HANSON
San Antonio, Texas Cadet, U.S.A.C.
Dec. 25 JAMES RUTLEDGE
San Francisco, Calif. Air Mail Pilot
1928
Jan. 21 GENE A. ALTHOFF
Fairfield, O. Civilian

Jan. 24	AMBERSE BANKS
Willow Grove, Pa.	Air Mail Pilot
Feb. 14	LOUIS M. BOURNE, JR.
Quantico, Va.	Major, U.S.M.C.
Feb. 28	ERNEST E. DRYER
Ypsilanti, Mich.	Civilian
March 23	WALTER C. GREEN
Quincy, Mass.	Lieut., U.S.N.
March 24	SAMUEL G. COLWELL
Squantum, Mass.	Lieut., U.S.N.R.
March 27	J. M. CARSON
Pensacola, Fla.	Ensign, U.S.N.
March 27	JAMES RUTLEDGE
Orindo, Calif.	Air Mail Pilot
April 6	BARNETT T. HALBOT
Anacostia, D.C.	Lieut., U.S.N.
April 6	ARTHUR J. FRIES
Dubuque, Ia.	Civilian
April 22	D. M. SWISHER
Kelly Field, Texas	Cadet, U.S.A.C.
April 26	LAWRENCE J. CARR
Clark Field, P.I.	1st Lieut., U.S.A.C.
May 25	STANLEY UMSTEAD
Mitchell Field, N. Y.	1st Lieut., U.S.A.C.
May 27	AL WILSON
Hollywood Hills, Calif.	Civilian
May 31	CARL K. WOLLAN
Westmorland City, Ohio	Civilian
June 8	MAXWELL BALFOUR
Mitchell Field, N. Y.	1st Lieut., U.S.A.C.
June 8	JOHN A. McCORMICK
Mitchell Field, N. Y.	1st Lieut., U.S.A.C.
June 18	WILLIAM R. SHEPARD
Capistrano, Cal.	Cadet, U.S.A.C.
June 26	L. T. CLEAVES
Vallejo, Cal.	Ensign, U.S.N.R.
July 1	WILLIAM L. CAMPBELL
Kansas City, Mo.	Capt., U.S.A.C.R.
July 4	RALPH C. WENSINGER
Cleveland, Ohio	Civilian
July 17	E. C. EWEN
Pensacola, Fla.	Lieut., U.S.N.
Aug. 3	WILLIAM J. CROSSWELL
Kelly Field, Texas	Cadet, U.S.A.C.
Aug. 17	GEORGE E. K. MacKINSEY
Bristol, Pa.	Civilian
Aug. 11	B. E. GATES
Clarksburg, W. Va.	1st Lieut., U.S.A.C.
Aug. 13	RAYMOND L. WINN
Los Angeles, Cal.	Cadet, U.S.A.C.
Sept. 14	SHELDON C. YODER
Kelly Field, Texas	Cadet, U.S.A.C.
Sept. 14	H. W. PENNINGTON
Galveston, Texas	1st Lieut., U.S.A.C.
Sept. 14	JEWELL S. WILSON
Galveston, Texas	Pvt., U.S.A.C.
Sept. 25	R. B. WILLIAMS
San Diego, Cal.	1st Lieut., U.S.A.C.
Oct. 21	FLOYD E. EVANS
Detroit, Mich.	Major, Mich. Ntl. Guard
Nov. 1	EARL H. DeFORD
Morrison, Pa.	Capt., U.S.A.C.
Nov 1	RICHARD K. GAINES
San Diego, Cal.	Ensign, U.S.N.



MAJOR JAMES H. DOOLITTLE

Internationally famous aviator and holder of World's Speed Record, 1932, for land airplanes. His life has been saved twice by IRVIN Air Chutes.

Nov. 14	HARVEY F. DYER
Brooks Field, Texas	2nd Lieut., U.S.A.C.
Nov. 14	FRANK J. SIEBENALER
Brooks Field, Texas	Sgt., U.S.A.C.
Nov. 18	PAUL COLLINS
Brookville, Pa.	Pilot Air Mail
Nov. 22	RICHARD I. DUGAN
Kelly Field, Texas	Cadet, U.S.A.C.
Dec. 3	JAMES COLLINS
Bolling Field, D.C.	Civilian
Dec. 4	STUART H. MURPHY
Alamo, Cal.	Civilian
Dec. 4	NORME D. FROST
Wheeler Field, T. H.	2nd Lieut., U.S.A.C.
Dec. 10	DANIEL BURNS
Kent, Ohio	Civilian
Dec 11	W. H. DOOLITTLE
Selfridge Field, Mich.	1st Lt., U.S.A.C.
Dec. 11	R. L. SCHOENLEIN
Selfridge Field, Mich.	1st Lt., U.S.A.C.
Dec. 17	J. ORDWAY WEBSTER
Chicago, Ill.	Pilot, Air Mail
Dec. 31	KENNETH MEINARD
Glendale, Cal.	Civilian
1929	
Jan. 26	JULIAN B. HADDON
Wright Field, Ohio	1st Lieut., U.S.A.C.
Jan. 30	J. B. STORY
Davenport, Ia.	Pilot, Air Mail
Feb. 15	W. L. MORGAN
Selfridge Field, Mich.	1st Lt., U.S.A.C.
March 1	TEMPLE JOYCE
Alexandria, Va.	Civilian

UNITED STATES (Continued)

March 10 T. M. LOWE
Brooks Field, Tex. 1st Lieut., U.S.A.C.

March 12 CHARLES W. HOLMAN
Minneapolis, Minn. Civilian

March 16 JOHN H. TILTON
Washington, D.C. 1st Lieut., U.S.A.C.R.

March 22 S. J. SAMPSON
Harmon, Ill. Pilot, Air Mail

March 22 J. KANUIT
Harmon, Ill. Pilot, Air Mail

March 31 FRED ROULETTE
Indianapolis, Ind. Sgt., Ind. Ntl. Guard

April 14 WILLIAM WIMER
Gumbo, Mo. Capt., Missouri Ntl. Guard

May 18 A. F. SOLTER
Wright Field, Ohio 2nd Lieut., U.S.A.C.

May 23 A. S. KOCH
Minneapolis, Minn. Test Pilot

June 3 HAROLD NEUMANN
San Diego, Cal. Seaman, U.S.N.

June 3 LLOYD C. BLACKBURN
Ft. Robinson, Nebr. 1st Lieut., U.S.A.C.

June 3 LLOYD W. THACKER
Ft. Robinson, Nebr. Staff Sgt., U.S.A.C.

June 11 LEON S. ALLEN
Philadelphia, Pa. Test Pilot

June 13 FLOYD B. WOOD
Kelly Field, Texas Cadet, U.S.A.C.

June 18 CLINTON E. HERBERGER
Los Angeles, Cal. 1st Lieut., U.S.A.C.R.



BJERA CHOOPRAYOON
Lieut., Royal Siamese Air Force
Life saved with IRVIN Air Chute on
September 22, 1931, when his plane inter-
locked with wing of another during aerial
maneuvers.

June 22 LEE FLANAGIN
Los Angeles, Cal. Civilian

June 23 ALFRED BARRETT, Jr
Boston, Mass. Civilian

June 24 P. M. CLYDE
San Diego, Cal. Lieut., U.S.N.

July 1 JAMES T. HUTCHINSON
Honolulu, T.H. 1st Lieut., U.S.A.C.

July 1 REUBEN C. MOFFAT
Honolulu, T. H. 1st Lieut., U.S.A.C.

July 1 RICHARD H. DEPEW, Jr
Johnstown, Pa. Civilian

July 1 A. A. WOODRUFF
Johnstown, Pa. Civilian

July 6 EDDIE MARTIN
Santa Anna, Cal. Civilian

July 8 ALEXANDER P. KRAPISH
Lowell, Mass. Civilian

July 18 CHARLES GATCHET
Des Moines, Ia. Civilian

July 20 G. H. BEVERLEY
Kansas City, Mo. 1st Lieut., U.S.A.C.

July 29 BENJAMIN C. FIDDLER
Riverside, Cal. Cadet, U.S.A.C.

July 30 H. H. G'SELL
Pensacola, Fla. Ensign, U.S.N.

July 30 ROBERT A. WILLIAMS
Pensacola, Fla. Sgt., U.S.M.C.

July FRED PHILBRICK
San Luis Obispo, Cal. Civilian

Aug. 9 M. E. ZELLER
Dearborn, Mich. Civilian

Aug. 11 JACK ADAMSON
Dayton, Ohio Civilian

Aug. 12 ROBERT W. GOETZ
Kelly Field, Texas Cadet, U.S.A.C.

Aug. 12 JULIUS A. BARR
Selfridge Field, Mich. 1st Lt., U.S.A.C.

Aug. 12 L. J. HOLUBEK
Dallas, Texas U. S. Dept. of Commerce

Sept. 1 J. H. DOOLITTLE
Cleveland, Ohio 1st Lieut., U.S.A.C.

Sept. 1 MISS FAY GILLIS
Valley Stream, N. Y. Civilian

Sept. 1 JOHN TRUNK
Valley Stream, N. Y. Civilian

Sept. 2 DAVID H. YOUNG
Columbus, Ohio Capt., U.S.A.C.R.

Sept. 4 GEORGE F. SCHUYLGEN
Columbus, Ohio 1st Lieut., U.S.A.C.

Sept. 5 MRS. WAYNE H. FISHER
Columbus, Ohio Civilian

Sept. 11 T. S. POWER
Langley Field, Va. 1st Lieut., U.S.A.C.

Sept. 11 HARRY E. R. HALL
Langley Field, Va. Civilian

Sept. 16 ERRETT WILLIAMS
Colorado Springs, Colo. Civilian

Sept. 20 ARTHUR CENTER
Springfield, Mass. Civilian

Sept. 20	J. E. BAKER
Newport News, Va.	1st Lieut., U.S.A.C.
Sept. 20	J. F. BENECKE
Newport News, Va.	Lieut., U.S.N.
Sept. 21	DANIEL J. SMITH
France Field, C.Z.	Pvt., U.S.A.C.
Sept. 22	JOHN M. DONALDSON
Birmingham, Ala.	1st Lieut., U.S.A.C.
Sept. 22	LUTHER N. JOHNSON
Birmingham, Ala.	1st Lieut., U.S.A.C.
Sept. 24	DONALD B. PHILLIPS
Nichols Field, P.I.	1st Lieut., U.S.A.C.
Sept. 24	LAWRENCE R. HALL
Nichols Field, P.I.	Pvt., U.S.A.C.
Sept. 24	HOWARD G. CROOP
Nichols Field, P.I.	Pvt., U.S.A.C.
Sept. 25	J. P. DeSHAZO
San Diego, Cal.	Lieut., U.S.N.
Sept. 27	HOWARD POYAS
Los Angeles, Cal.	Civilian
Sept. 29	A. V. BUTTERFIELD
Cincinnati, Ohio	2nd Lieut., U.S.A.C.R.
Oct. 5	VIRGIL "TEX" RUSSELL
Holland, Mich.	Civilian
Oct. 11	P. B. BALFOUR
March Field, Cal.	Cadet, U.S.A.C.
Oct. 20	HARRY SEIVERS
Pittsburgh, Pa.	Civilian
Oct. 21	JOHN SELIGMAN
Freeport, N. Y.	1st Lieut., U.S.A.C.
Nov. 1	E. H. DeFORD
Langley Field, Va.	Capt., U.S.A.C.
Nov. 4	LINDSAY M. BAWSEL
Rantoul, Ill.	2nd Lieut., U.S.A.C.
Nov. 6	THOMAS P. NELSON
Ringtown, N. J.	Pilot, Air Mail
Nov. 7	JOHN M. PINCOMB
Riverside, Cal.	Cadet, U.S.A.C.
Nov. 7	JOSEPH A. ANDERSON
Riverside, Cal.	Cadet, U.S.A.C.
Nov. 16	AUSTIN A. STRAUBEL
Mt. Clemens, Mich.	2nd Lieut., U.S.A.C.
Nov. 20	ROBERT J. BAILIE
New York, N. Y.	Civilian
Nov. 21	P. G. STEVENS
Los Angeles, Cal.	Civilian
Nov. 24	LINDSAY M. BAWSEL
Rantoul, Ill.	2nd Lieut., U.S.A.C.
Nov. 25	EDGAR M. FOGGELSONGER
Tuttle, Okla.	1st Lieut., U.S.A.C.
Nov. 25	JOHN A. TARRO
Tuttle, Okla.	2nd Lieut., U.S.A.C.
Nov. 25	JAMES W. McCAULEY
Tuttle, Okla.	2nd Lieut., U.S.A.C.
Nov. 25	WILLIAM J. MANSFIELD
Tuttle, Okla.	Mstr. Sgt., U.S.A.C.
Dec. 4	J. M. GILLISPIE
Goodwater, Ala.	1st Lieut., U.S.A.C.
Dec. 4	D. M. CAPPS
Goodwater, Ala.	Staff Sgt., U.S.A.C.
Dec. 4	R. A. BREMER
Goodwater, Ala.	Staff Sgt., U.S.A.C.



LIEUT. AMARILO V. CORTEZ
Brazilian Army.

Life saved with IRVIN Air Chute near Rio de Janeiro on May 21, 1930, when his airplane failed structurally.

1930

Jan. 6	WILLIAM C. MILLS
Galveston, Texas	2nd Lieut., U.S.A.C.
Jan. 6	LINDSEY L. BRAXTON
Galveston, Texas	Sgt., U.S.A.C.
Jan. 7	GEORGE LAW
San Juna Pueblo, N. M.	Civilian
Feb. 16	ROY O. HUNT
San Francisco, Cal.	Civilian
March 9	ROBERT P. DEUEL
Dallas, Texas	Civilian
March 11	F. M. HOPKINS
Chase, Md.	1st Lieut., U.S.A.C.
March 11	A. D. COOK
Chase, Md.	Pvt., U.S.A.C.
March 11	A. H. DeWITT
Kalamazoo, Mich.	Civilian
March 27	PENNY ROGERS
Wichita, Kansas	Civilian
March 27	STEPHEN R. SHORE
Los Angeles, Cal.	Civilian
March 30	MILDRED KAUFFMAN
Buffalo, N. Y.	Civilian
March 30	HARRY SIEVERS
Warren, Ohio	Civilian
April 2	JAMES M. SHUTT
Detroit, Mich.	Civilian
April 4	C. EUGENE SEARLE
Detroit, Mich.	Civilian
April 10	HOWARD C. HARTUNG
Detroit, Mich.	Civilian
April 10	FRANK C. SPANGLER
Riverside, Cal.	Cadet, U.S.A.C.
April 12	STAFFORD L. LAMBERT
St. Louis, Mo.	Lieut., U.S.A.C.R.

UNITED STATES (Continued)

April 12 HERBERT D. CONDIE
St. Louis, Mo. Pvt., U.S.A.C.R.

April 12 HENRY MICHAELS
San Mateo, Cal. Civilian

April 12 WILLIAM F. DORMAN
San Mateo, Cal. Civilian

April 22 CARROLL WARD
Dallas, Texas Civilian

April 22 W. D. PHILLIPS
Dallas, Texas Civilian

April 23 I. A. WOODRING
Sacramento, Cal. 2nd Lieut., U.S.A.C.

April 26 HENRY I. BROWN
Clearwater, Pa. Pilot, Air Mail

May 2 C. H. PICKUP
Pittsburgh, Pa. Civilian

May 2 D. ALLEN DITTMAN
Pittsburgh, Pa. Civilian

May 2 T. WASILEVICH
Fresno, Cal. Pvt., U.S.A.C.

May 8 J. O. DOCKERY
Pine Bluff, Ark. Civilian

May 9 A. T. FROLICH
San Francisco, Cal. Civilian

May 11 T. T. CHAPMAN, Jr.
Green Bay, Wis. Civilian

May 14 H. LYNN COWAN
Honolulu, T. H. Sgt., U.S.A.C.

May 17 A. H. BILLSTROM
Houston, Texas Civilian

May 18 ROBERT D. CHEW
Valley Stream, N. Y. Civilian

May 19 J. D. KREYSLER
San Antonio, Texas Cadet, U.S.A.C.

May 19 RICHARD J. DeLACEY
San Diego, Cal. 1st Lieut., U.S.M.C.

May 19 A. S. MERRIFIELD
San Antonio, Texas Cadet, U.S.A.C.

May 22 W. E. KRAUS
Langley Field, Va. 2nd Lieut., U.S.A.C.

May 24 S. J. SAMSON
Bedford, Ohio Pilot, Air Mail

May 26 EDWARD F. KIESSIG
San Angelo, Texas Cadet, U.S.A.C.

May 30 LLOYD E. HUNT
Tipton, Okla. Cadet, U.S.A.C.

May 30 JOSEPH A. BULGER
Sparta, Mo. 2nd Lieut., U.S.A.C.

June 5 JOHN R. GLASCOCK
March Field, Cal. 1st Lieut., U.S.A.C.

June 9 LaVERE TREMBLAY
Dallas, Texas Civilian

June 24 THOMAS G. FISHER
San Diego, Cal. Lieut., U.S.N.

June 28 EILER C. SUNDORPH
Cleveland, Ohio Civilian

June 28 JACK WEIS
Cleveland, Ohio Civilian

July 11 C. B. SMITH
St. Paul, Minn. Civilian

July 12 JOHN CHAPLESON
Mineola, N. Y. Civilian

July 13 GEORGE WEHRUNG
Houston, Texas Pvt., U.S.A.C.

July 15 L. D. MILLER
Omaha, Nebr. Civilian

July 15 E. H. WHITE
Kelly Field, Texas 1st Lieut., U.S.A.C.

July 15 KARL G. E. GIMMLER
Hallettsville, Tex. 2nd Lieut., U.S.A.C.

July 15 FRANK J. SIROVIC
Hallettsville, Texas Corp., U.S.A.C.

July 17 RAY J. SOLOMON
Los Angeles, Cal. Civilian

July 17 WARD WELLS
Los Angeles, Cal. Civilian

July 17 GARLAND P. PEED, Jr.
Monroe, Ga. Civilian

July 17 R. S. ENSLOW
Monroe, Ga. Civilian

July 17 JIMMY GARRIGAN
Monroe, Ga. Civilian

July 22 F. H. SMITH
Kelly Field, Texas 1st Lieut., U.S.A.C.

July 24 A. A. MARTY
Sacramento, Cal. 1st Lieut., U.S.A.C.R.

July 24 J. W. McCRILLIS
Sacramento, Cal. Capt., U.S.A.C.R.

July 24 CHARLES H. KRUSE
Sacramento, Cal. Capt., U.S.A.C.R.

July 24 FRANCIS M. GILBERT
Sacramento, Cal. 2nd Lieut., U.S.A.C.R.

Aug. 8 C. H. S. WEAVER, Jr.
Buttonswood, R. I. Civilian

Aug. 4 JOHN G. FOWLER
Camp Knox, Ky. 2nd Lieut., U.S.A.C.

Aug. 5 ERIC WOOD
Westbury, N. Y. Civilian

Aug. 5 LEONARD G. ROOF
Cleveland, Ohio Civilian

Aug. 10 E. B. TWELLS
Chicago, Ill. Civilian

Aug. 11 J. G. GOLDSBY
San Antonio, Texas Cadet, U.S.A.C.

Aug. 13 HARRY ELLIS
Valley Stream, N. Y. Civilian

Aug. 19 IRA C. EAKER
Washington, D. C. Capt., U.S.A.C.

Aug. 22 J. E. RUSSELL
Burlington, Ia. Civilian

Sept. 10 TED WELLS
Wichita, Kan. Civilian

Sept. 24 MARION G. McCULLOUGH
Tulsa, Okla. Civilian

Sept. 24 HAROLD S. CHRISTENSON
Tulsa, Okla. Civilian

Oct. 1 JOHN M. CROSS
Kansas City, Mo. 1st Lieut., U.S.A.C.R.

Oct. 1 JAMES E. PARKER
Dayton, Ohio 1st Lieut., U.S.A.C.

Oct. 2 M. J. SIMPSON
Coco Sodo, C. Z. A.C.M.M., U.S.N.

Oct. 3 CURTIS E. SMITH, Jr.
Deatsville, Ala. 2nd Lieut., U.S.A.C.R.

Oct. 3 LAWRENCE A. DUNCAN
Deatsville, Ala. 2nd Lieut., U.S.A.C.R.

Oct. 9 PATRICK W. TIMBERLAKE
France Field, C. Z. 1st Lieut., U.S.A.C.

Nov. 12 H. T. MERRILL
Shelby, N. C. Civilian

Nov. 14 FRED WELSH
Norton, Kan. Civilian

Nov. 17 JOHN L. MAGDEN
Kelly Field, Texas Cadet, U.S.A.C.

Nov. 22 ROBERT M. KRAFT
Mat er Field, Cal. 2nd Lieut., U.S.A.C.

Dec. 2 E. H. UNDERHILL
Selfridge Field, Mich. Lieut., U.S.A.C.

Dec. 2 L. O. RYAN
Selfridge Field, Mich. 1st Lieut., U.S.A.C.

Dec. 8 A. R. KINGHAM
Troy, Texas Cadet, U.S.A.C.

Dec. 14 LLOYD T. SCHREIBER
Seattle, Wa. Seaman, U.S.N.R.

Dec. 14 H. W. GALL
Seattle, Wash. Civilian

Dec. 14 ROBERT S. KERSTETTER
Morristown, Tenn. Civilian

Dec. 15 JOHN S. PRICER
Evansville, Ind. Civilian

Dec. 18 M. B. GARDNER
San Pedro, Cal. Lieut., U.S.N.

Dec. 18 J. McHODGSON
Kelly Field, Texas Cadet, U.S.A.C.

Dec. 22 W. J. SCOTT
Wheeler Field, T. H. 2nd Lieut., U.S.A.C.

Dec. 22 G. J. SLOP
Wheeler Field, T. H. Sgt., U.S.A.C.

Dec 22 L. E. MASSIE
Fort Riley, Kan. 2nd Lieut., U.S.A.C.

Dec. 22 J. W. LUDINGTON
Junction City, Kan. Pvt., U.S.A.C.

December LEWIS D. PARKER
Boston, Mass. Civilian

1931

WALTER HUNTER
Sparta, Ill. Civilian Pilot

Jan. 8 A. W. DUKES
Winkleman, Ariz. Corp., U.S.A.C.

Jan. 8 WARREN H. HIGGINS
Encinal, Texas 2nd Lieut., U.S.A.C.

Jan. 8 W. R. PODRAZA
Kelly Field, Texas Sgt., U.S.A.C.

Jan. 11 A. H. SANTA MARIA
Philadelphia, Pa. 2nd Lieut., U.S.A.C.

Feb. 8 H. W. REGAN
Kelly Field, Texas Cadet, U.S.A.C.

Feb. 5 HAYWOOD S. HANSELL
Black River, Va. 2nd Lieut., U.S.A.C.

Feb. 8 C. D. FATOR
Whitewater, Cal. 1st Lieut., U.S.A.C.

Feb. 27 R. F. VANCE
Smith Field, N. C. 2nd Lieut., U.S.A.C.



MISS MILDRED KAUFFMAN

Life saved with IRVIN Air Chute on March 30, 1930, at Buffalo, N. Y., when she slipped from safety belt when in inverted position while making loop.

March 10 S. O. ROSS
Chanute Field, Ill. 1st Lieut., U.S.A.C.

March 10 H. M. WILLIAMS
Chanute Field, Ill. Pvt., U.S.A.C.

March 23 R. C. W. BLESSLEY
Selfridge Field, Mich. Capt., U.S.A.C.

April 1 RICHARD F. HARDIN
Santa Monica, Cal. Civilian

April 5 JUSTIN C. FORD
Bakersfield, Cal. Pvt., U.S.A.C.

April 5 J. T. CUMBERPATCH
Bakersfield, Cal. 1st Lieut., U.S.A.C.

April 6 J. A. BRIER
Kelly Field, Texas Cadet, U.S.A.C.

April 18 PAUL E. HOVGARD
Anacostia, D. C. Civilian

April 18 CHARLES A. FRENCH
Morrison, Va. Major, U.S.A.C.

April 18 R. G. BREENE
Morrison, Va. Capt., U.S.A.C.

April 24 ANTHONY J. SIEKLIICKI
Mineola, N. Y. Civilian

April 28 J. C. RICHARDSON
Ft. Benning, Ga. Sgt., U.S.A.C.

April 28 PETER HUBERT
Chicago, Ill. Sgt., U.S.A.C.

April 29 ERNEST K. WARBURTON
Detroit, Mich. 2nd Lieut., U.S.A.C.

May 12 J. K. CARIS
Los Angeles, Cal. Civilian

May 26 WILLIAM G. SWAN
Atlantic City, N. J. Civilian

June 5 HAROLD L. OSBORNE
Chanute Field, Ill. Pvt., U.S.A.C.

UNITED STATES (Continued)

June 6 KARL H. WHITE
Robertson, Mo. Civilian

June 9 ARTHUR R. KINGHAM
Mather Field, Cal. 2nd Lt., U.S.A.C.R.

June 23 J. H. DOOLITTLE
Robertson, Mo. Major, U.S.A.C.R.

June 27 ALBION S. HOWE
Oakland, Cal. Civilian

July 20 DAVE SPICER
Hartford, Conn. Sgt., U.S.A.C.

July 27 FRED J. O'NEIL
Boston, Mass. U.S.A.C.

July 27 O. P. PIERSON
Boston, Mass. 2nd Lieut., U.S.A.C.

Aug. 2 FREDERICK POSTAL
Imlay City, Mich. Civilian

Aug. 6 HARRY A. JOHNSON
Mt. Clemens, Mich. 1st Lieut., U.S.A.C.

Aug. 7 KENNETH W. MOSHER
Mt. Clemens, Mich. 2nd Lieut., U.S.A.C.

Aug. 7 ROBERT W. BURNS
Mt. Clemens, Mich. 2nd Lieut., U.S.A.C.

Aug. 10 DONALD E. MEADE
Luke Field, T. H. 2nd Lieut., U.S.A.C.

Aug. 10 JAMES D. KOONS
Luke Field, T. H. Pvt., U.S.A.C.

Aug. 14 WILLIAM H. DaBOLL
Cortland, N. Y. Civilian

Aug. 14 STANLEY M. VOSSLER
Cortland, N. Y. Civilian



LIEUT JOHN A. MacREADY
U. S. Air Corps

Pilot on first New York to San Francisco non-stop flight.

Life saved with an IRVIN Air Chute on June 18, 1924, while making a flight when engine failed with no possible landing place.

Aug. 17 WILLIAM F. DAY, Jr.
Mt. Clemens, Mich. 2nd Lieut., U.S.A.C.

Aug. 23 JOSEPH WALKOS
Mt. Clemens, Mich. Pvt., U.S.A.C.

Aug. 30 WELDON E. RHOADES
Wheeler Field, T. H. Lieut., U.S.A.C.

Sept. 1 THAYER S. OLDS
Cleveland, Ohio Lieut., U.S.A.C.

Sept. 6 WALTER HUNTER
Cleveland, Ohio Civilian

Sept. 12 WILLIAM KELLY
Philadelphia, Pa. Sgt., Pa. Nat'l Guard

Sept. 12 H. R. BRINTON
Brattleboro, Vt. Civilian

Sept. 18 A. D. SWICK
Flint, Mich. Civilian

Sept. 21 JAMES G. HALL
Staten Island, N. Y. Civilian

Sept. 23 LEON McKENNON
Bryan, Texas Civilian

Sept. 25 R. W. FAIRINGTON
Crissy Field, Cal. Pvt., U.S.A.C.

Sept. 25 R. B. RICHARD
Crissy Field, Cal. 2nd Lieut., U.S.A.C.

Oct. 4 WESTON W. ADAMS
Boston, Mass. Civilian

Oct. 4 RUSSELL LOVEJOY
Detroit, Mich. Civilian

Oct. 15 JOHN V. KIPP
St. Paul, Minn. 2nd Lieut., U.S.M.C.R.

Oct. 19 HARRISON G. CROCKER
Fairfield, Ohio 1st Lieut., U.S.A.C.

Oct. 21 STANLEY J. JAVOS
San Diego, Cal. Chief Av. Pilot, U.S.N.

Oct. 28 LLOYD L. JUELSON
Memphis, Tenn. Civilian

Oct. 30 H. G. HOUGHTON, Jr.
So. Dartmouth, Mass. Civilian

Nov. 3 ERNEST H. BRISCOE
Kelly Field, Texas Cadet, U.S.A.C.

Nov. 28 MELVIN C. GARLOW
Pittsburgh, Pa. Civilian

Dec. 1 GENARO RIONDA
Newark Bay, N. J. Civilian

Dec. 8 WILLIAM S. GREY
Mayfair, O. Civilian

Dec. 13 R. J. SCANLON
Greencastle, Ind. Civilian

Dec. 15 DONALD N. YATES
Randolph Field, Texas 2nd Lt., U.S.A.C.

Dec. 16 JOHN H. DAVIES
Honolulu, T. H. 2nd Lieut., U.S.A.C.

Dec. 24 JAMES O. JOHNSON
Bellefonte, Pa. Civilian

1932

Jan. 1 R. L. LEMCKE
Los Angeles, Cal. Sgt., U.S.A.C.R.

Jan. 1 A. A. LEMCKE
Los Angeles, Cal. Civilian

Jan. 4 NEAL E. AUSMAN
France Field, C. Z. 2nd Lieut., U.S.A.C.

Jan. 7 R. J. POTTER
Kelly Field, Texas Cadet, U.S.A.C.

Jan. 7 A. V. P. ANDERSON
Nichols Fld., Rizal, P.I 2nd Lt., U.S.A.C.

Jan. 15 W. O. RILEY
Kelly Field, Texas Cadet, U.S.A.C.

Jan. 28 W. B. WEBB
Lawrence, Kan. Civilian

Feb. 1 W. A. COCKE, Jr.
Sequoia Nat. Pk., Calif. 2nd Lt., U.S.A.C.

Feb. 3 JAMES M. TREWEEK
Sanderson, Texas Cadet, U.S.A.C.

Feb. 21 EVEREST F. WAID
El Paso, Texas Sgt., U.S.A.C.

Feb. 21 JAMES D. RONIN
El Paso, Texas 2nd Lieut., U.S.A.C.

Feb. 23 RICHARD W. FRENCH
Riverside, Cal. 2nd Lieut., U.S.A.C.

Feb. 23 P. K. MORRILL, Jr.
Corona, Calif. 2nd Lieut., U.S.A.C.

Feb. 24 W. L. HAWKINS
Oklahoma City, Okla. Civilian

Feb. 24 L. T. DUTCHER
Oklahoma City, Okla. Civilian

March 21 ROLAND O. S. AKRE
Langley Field, Va. 2nd Lieut., U.S.A.C.

March 28 HAROLD KROW
Denver, Colo Civilian

March 28 GEORGE TAYLOR
Denver, Colo. Civilian

April 4 R. C. McLAUGHLIN
Utica, Mich. 1st Lieut., U.S.A.C.

April 8 B. W. DAVIS
Selfridge Field, Mich. 1st Lt., U.S.A.C.

April 8 L. R. BLACK
Selfridge Field, Mich. 1st Lt., U.S.A.C.

April 15 W. H. ALEXANDER, Jr.
Langley Field, Va. 1st Lieut., U.S.A.C.

April 30 JOHN H. PATTERSON
Boston, Mass. Capt., U.S.A.C.

April CECIL W. DINGMAM
Texas Capt., U.S.A.C.

May 13 J. W. HUNT
Yorkville, Ohio Capt., U.S.A.C.R.

May 23 W. J. WALLACE
San Diego, Cal. Capt., U.S.A.C.

May 23 J. C. MUNN
San Diego, Cal. Lieut., U.S.M.C.

June 1 C. W. SOULE
Cape May, N. J. Civilian

June 2 H. M. McCOY
New Haven, Mich. 1st Lieut., U.S.A.C.

June 15 JOHN C. GORDON
Randolph Field, Texas 1st Lt., U.S.A.C.

July 3 HARRY E. CAMPBELL
E. St. Louis, Ill. Civilian

July 6 JOSEPH H. SWITLIK
Belle Vernon, Pa. Civilian

July 6 CARL C. LANGE
Belle Vernon, Pa. Civilian

July 8 J. R. MERRITT
March Field, Calif. U.S.A.C.R.



LIEUT. HENRYKA PAWLICKI
Polish Air Force.

Life saved with an IRVIN Air Chute
at Torun, Poland, June 21, 1928, when
his airplane went into a spin from which
he was unable to regain control.

July 12 CHARLES HAAS
San Luis Obispo, Cal. 2nd Lt., U.S.A.C.

July 12 R. H. HEBNER
San Luis Obispo, Cal. Pvt., U.S.A.C.

Aug. 7 CHARLES A. LUTZ
Bluefield, Va. Civilian

Aug. 22 J. G. FOWLER
Randolph Field, Texas 2nd Lt., U.S.A.C.

Aug. 22 J. J. KELLY
Randolph Field, Texas 1st Lt., U.S.A.C.

Sept. 2 LIONEL C. EDWARD
Selfridge Field, Mich. St. Agt., U.S.A.C.

Sept. 2 EDW. R. RAWLINGS
Fort Ringgold, Texas 2nd Lt., U.S.A.C.

Sept. 16 FRANK LIPKE
Mishawaka, Ind. Civilian

Sept. 16 GEORGE F. McDERMOTT
Randolph Field, Texas Cadet, U.S.A.C.

Sept. 16 FRANK D. SINCLAIR
Limon Bay, C. Z. 2nd Lieut., U.S.A.C.R.

Sept. 24 KENNETH R. UNGER
New Brunswick, N. J. Civilian

Oct. 7 R. W. CLIFTON
Scott Field, Ill. Sgt., U.S.A.C.

Oct. 7 V. E. PRICHARD
Scott Field, Ill. Major, Field Artillery

Oct. 10 H. H. SARGENT, Jr.
Charkmont, Mass Civilian

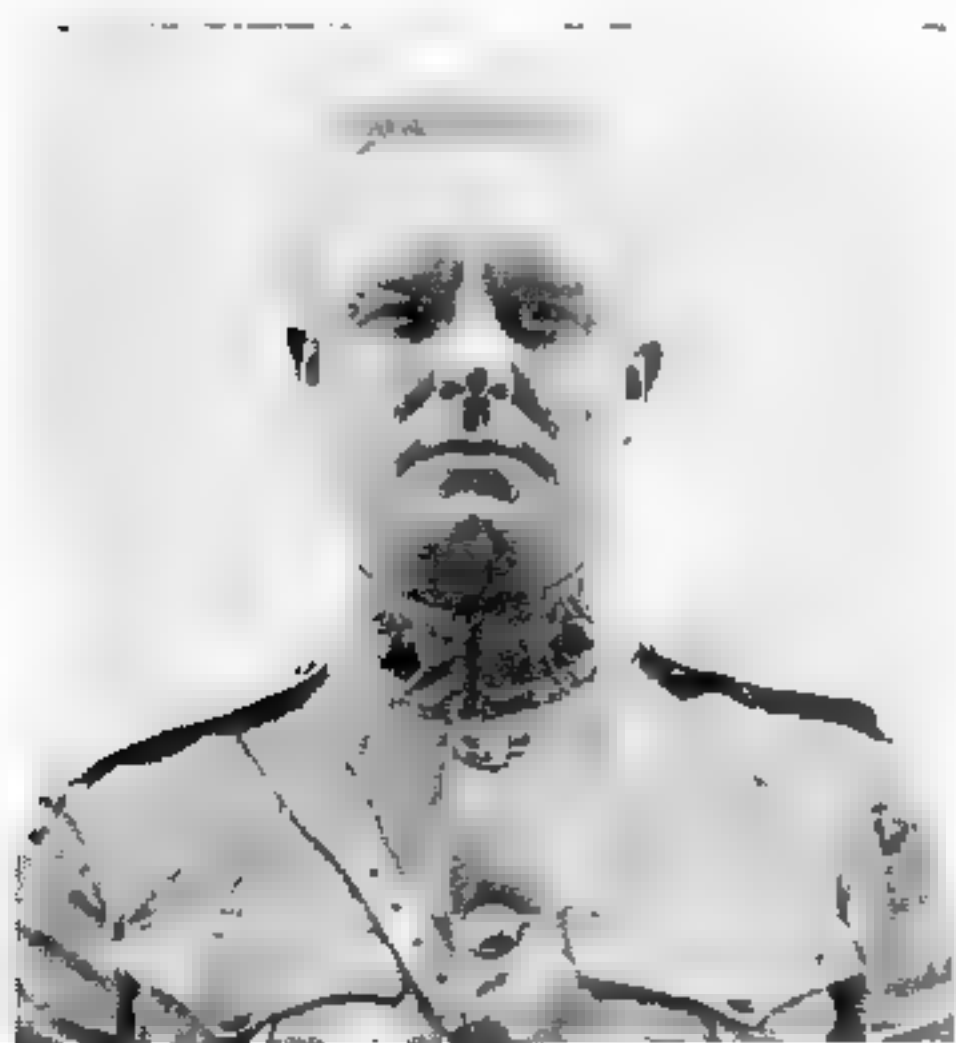
Oct. 10 OSCAR P. SUTTON
Willoughby, Ohio Civilian

UNITED STATES (Continued)

Oct. 21 MURL ESTES
Greenburg, Pa. Air Mail Pilot
Oct. 27 E. H. RICE
Ft. Leavenworth, Kan. Lieut., U.S.A.C.
Nov. 7 R. W. CLIFTON
Scott Field, Ill. Staff Sgt., U.S.A.C.
Nov. 17 J. S. HOLMBERG
San Diego, Calif. 2nd Lieut., U.S.M.C.
Dec. 16 C. J. KING
Coronado, Cal. Sgt., U.S.A.C.
Dec. 18 PARKER ABBOTT
Long Beach, Cal. Lieut., U.S.M.C.R.

1933

Jan. 13 FRANK O'D. HUNTER
Dayton, Ohio Capt., U.S.A.C.
Jan. 17 C. M. SARTAIN
Santa Monica, Cal. 2nd Lt., U.S.A.C.R.
Jan. 19 RALMOND D. ROBISON
Selfridge Fld., Mich. 2nd Lt., U.S.A.C.R.
Jan. 20 MERRICK H. TRULY
Kelly Field, Texas 2nd Lieut., U.S.A.C.
Feb. 8 HARRY A. SUTTON
Hamburg, N. Y. Civilian
Feb. 9 RAYMOND D. ROBISON
New Baltimore, M., 2nd Lt., U.S.A.C.R.
Feb. 26 WALTER SEYERLE
Cross Forks, Pa. Civilian
Feb. 26 OTTO G. GLASS
March Field, Calif. U.S.A.C.
March 2 WM. S. GREEN
Kansas City, Mo. Capt., U.S.A.C.R.
March 9 ROY H. LYNN
Cajon Pass, Calif. Lieut., U.S.A.C.
March 12 RUTH E. DORSETT
Ozark Mts., Mo. Civilian



MAJOR LOUIS M. BOURNE, Jr.
U. S. Marine Corps

Life saved with an IRVIN Air Chute
on February 14, 1928, when his airplane
was disabled in a severe electrical storm.

March 12 L. D. CRAWFORD
Ozark Mts., Mo. Capt., U.S.A.C.R.
March 14 E. H. LAWSON
Albrook Field, C. Z. Lieut., U.S.A.C.
March 17 L. S. FULWIDER
Kelly Field, Texas Cadet, U.S.A.C.
March 21 P. B. KLEIN
Kelly Field, Texas Cadet, U.S.A.C.
March 22 E. E. BASHAM
Conneaut, O. Air Mail Pilot
April 13 A. J. McKEAN, Jr.
Luling, Texas Civilian
April 14 VINCENT FORD
Riverside, Cal. Lieut., U.S.A.C.
April 14 CHARLES M. McHENRY
Riverside, Cal. Lt., U.S.A.C.
April 17 PERCY L. HICKS
Raleigh, N. C. Civilian
April 20 PAUL WATERMAN
Paxton, Ill. 2nd Lt., U.S.A.C.R.
April 27 G. S. STEAD
Mitchell Field, N. Y. Lt., U.S.A.C.R.
April 27 A. M. BANKS
Mitchell Field, N. Y. Lt., U.S.A.C.R.
May 4 HOMER A. BOUCHEY, Jr.
Kelly Field, Texas Cadet, U.S.A.C.
May 5 H. S. WILLIAMS
Randolph Field, Texas U.S.A.C.
May 13 W. J. GRIFFITH
Manns Choice, Pa. Air Mail Pilot
May 19 R. M. DAVIS
Luke Field, T. H. Civilian
May 19 LOMA L. DYESS
Luke Field, T. H. U.S.A.C.
May 25 JACK HERMAN
Hollister, Cal. Civilian
May 25 E. D. AVARY
Kelly Field, Texas Cadet, U.S.A.C.
May 25 W. M. ALTENBURG
Kelly Field, Texas Cadet, U.S.A.C.
May 27 NORMAN BURNETT
Lansing, Ill. Lieut., U.S.A.C.
June 12 C. W. DeCUIR
Beeville, Texas U.S.A.C.
June 19 THOS. J. SCHOFIELD
Kelly Field, Texas Cadet, U.S.A.C.
July 16 ROBT. O. CARR
Romulus, Mich. Pvt., U.S.A.C.
July 22 J. G. COULTER
Council Bluffs, Iowa Civilian
July 27 J. S. IRVINE
Kelly Field, Texas Cadet, U.S.A.C.
Aug. 19 H. N. ROYSTER
Tulsa, Okla. Civilian
Aug. 29 L. A. VAUPRE
Randolph Field, Texas Lieut., U.S.A.C.
Sept. 6 J. C. COLGAN
Freehold, N. J. Major, U.S.A.C.
Sept. 6 H. W. MARTENS
Freehold, N. J. Pvt., U.S.A.C.
Sept. 6 J. K. LACEY
Hopewell, N. J. Lieut., U.S.A.C.

Sept. 6	Hopewell, N. J.	P. G. HUNTER	Capt., U.S.A.C.
Sept. 6	Island Park, N. Y.	A. L. LOGAN	Lieut., U.S.A.C.
Sept. 6	Island Park, N. Y.	E. P. WHITTAKER	Pvt., U.S.A.C.
Sept. 8	Kelly Field, Texas	HUNTER HARRIS, Jr.	Lieut., U.S.A.C.
Sept. 8	Kelly Field, Texas	W. D. MITCHELL	Cadet, U.S.A.C.
Oct. 6	Gila Bend, Ariz.	EDWARD DORSEY	2nd Lieut., U.S.A.C.R.
Oct. 9	Maxwell Field, Ala.	WALLACE N. KEENE	Pvt., U.S.A.C.
Oct. 9	Langley Field, Va.	F. K. PAUL	Lieut., U.S.A.C.
Oct. 9	Montgomery, Ala.	C. E. THOMAS	Lieut., U.S.A.C.
Oct. 13	March Field, Cal.	KENNETH GARDNER	U.S.A.C.
Oct. 13	March Field, Cal.	J. E. CARTER	Pvt., U.S.A.C.R.
Oct. 13	March Field, Cal.	KENNETH RUSSELL	1st Lieut., U.S.A.C.
Oct. 14	Wilmington, Del.	ROY HUNT	Civilian
Oct. 14	Cleveland, O.	FRED MONTAGUE	Civilian
Nov. 1	San Diego, Cal.	F. L. BROWN	Pilot, U.S.N.
Nov. 3	Langley Field, Va.	G. W. YOUNGERMAN	Lieut., U.S.A.C.
Nov. 8	Langley Field, Va.	ROBERT GAULT	U.S.A.C.
Nov. 11	Morlarity, N. M.	HARLAN HALL	Civilian
Nov. 21	El Paso, Texas	JAMES INGRAM	Civilian
Nov. 24	Kelly Field, Texas	L. A. TERRY	Cadet, U.S.A.C.
Nov. 24	Kelly Field, Texas	ALLEN L. TERRY	Cadet, U.S.A.C.
Nov. 24	Kelly Field, Texas	L. A. BROWN	Cadet, U.S.A.C.
Dec. 11	Portage, Pa.	GENE BURFORD	Civilian
Dec. 11	Portage, Pa.	H. G. ANDREWS	Civilian
Dec. 12	Bacon's Castle, Va.	E. F. ALLEE	Lieut., U.S.A.C.
Dec. 12	Azusa, Calif.	J. E. CARTER	Tech. Sgt., U.S.A.C.
	Mission Valley, Calif.	RANDLE W. ALCORN	Civilian
Dec. 16	Wayne, Mich.	KARL DAY	Civilian
Dec. 20	Balboa, C. Z.	J. A. BULGER	2nd Lieut., U.S.A.C.



DAVID GREIG, D.F.C.
Lieut., British Royal Air Force.
This famous British speed pilot saved his life with an IRVIN Air Chute when his airplane failed to respond to the controls after spinning more than 4000 feet.

1934

Jan. 8	Pittsburgh, Pa.	E. W. ANDERSON	1st Lieut., U.S.A.C.
Jan. 23	Langley Field, Va.	MARTIN EDDY	Sgt., U.S.A.C.
Jan. 23	Langley Field, Va.	L. T. MILLER	Corp., U.S.A.C.
Feb. 2	Kelly Field, Texas	DONALD W. EISENHART	Cadet, U.S.A.C.
Feb. 13	Wheeler Field, T. H.	R. E. BEEBE, Jr.	2nd Lt., U.S.A.C.
Feb. 13	New Baltimore, Mich.	C. H. ANDERSON	U.S.A.C.
Feb. 13	Wheeler Field, T. H.	DEMAS B. CRAW	Lieut., U.S.A.C.
Feb. 14	Oahn, T. H.	A. G. GADEN	Lieut., U.S.N.
Feb. 14	Oahn, T. H.	W. L. GRUBER	N.A.P., U.S.N.
Feb. 14	Oahn, T. H.	C. P. MAY	A.C.M.M., U.S.N.
Feb. 14	Oahn, T. H.	S. D. KAMRAR	A.C.M.M., U.S.N.
Feb. 14	Oahn, T. H.	T. P. GOLEY	Aomic, U.S.N.
Mar. 20	Kelly Field, Texas	VICTOR L. ANDERSON	Cadet, U.S.A.C.
April 3	Sunbury, Pa.	DON H. BAXTER	Lieut., U.S.A.C.
April 3	Sunbury, Pa.	H. N. CRUMLEY	Lieut., U.S.A.C.

UNITED STATES (Continued)

April 3 WILLIAM LE TART
Sunbury, Pa. Pvt., U.S.A.C.

April 3 C. L. REAVIS
Denver, Colo. Lt. Com., U.S.A.C.R.

April 21 FRANCIS R. DRAKE
Kelly Field, Texas Cadet, U.S.A.C.

May 2 JAMES O. FOSTER
Birmingham, Ala. N.G., U.S.A.C.

May 5 DEED LEVY
Wichita, Kan. Civilian Test Pilot

May 6 J. C. BADER
Ironton, Mich. Civilian

May 6 ROBERT MOORE, Jr.
Ironton, Mich. Civilian

May 7 GILMORE V. MINNIS
Kelly Field, Texas Cadet, U.S.A.C.

May 15 J. STANLEY HOLTNER
Castronville, Tex. Cadet, U.S.A.C.

May 15 WM. M. MARKS, Jr.
Castronville, Tex. Cadet, U.S.A.C.

May 30 ALBERT JACKSON
Little Falls, Minn. Civilian

June 10 JACK A. BURKE
Dallas, Tex. Civilian

June 12 ELY M. KINNEY
Hoffmans, N. Y. Civilian

June 14 PAUL HOVGARD
Buffalo, N. Y. Civilian Test Pilot

June 24 HERBERT H. MILLS
Rutland, Vt. Capt., U.S.A.C.

July 1 GORDON MYERS
Ontonagon, Mich. Civilian

July 7 J. M. TODD
Montgomery, Ala. Lieut., U.S.A.C.

July 12 ROBERT L. HALL
Wayne, Mich. Aeronautical Engineer

July 18 FRANK G. IRVIN
Midway, Ohio 1st Lieut., U.S.A.C.

July 22 CHARLES M. BOLDEN
Brooklyn, N. Y. Civilian

Aug. 6 RALPH R. BURR
Luke Field, T. H. Pvt., U.S.A.C.

Aug. 7 HENRY G. THORNE
Atlanta, Ga. Pvt., U.S.A.C.

Aug. 7 A. J. OLD
Barksdale Field, La. Lieut., U.S.A.C.

Aug. 10 L. R. WILLIAMS
Mooringsport, Ind. Lieut., U.S.A.C.

Aug. 20 SIDNEY D. GRUBBS, Jr.
Kelly Field, Texas 2nd Lieut., U.S.A.C.

Aug. 31 W. F. MORRIS
Randolph Field, Texas Cadet, U.S.A.C.

Sept. 22 T. O. SIMMONS
Parksdale Field, La. U.S.A.C.

Sept. 27 J. M. TREWEEK
Cumberland, Ohio Pvt., U.S.A.C.

Oct. 2 EDW. J. HALE
Kelly Field, Texas 2nd Lieut., U.S.A.C.

Oct. 2 F. W. OLMSTED
Bishop, Calif. Civilian

Oct. 4 WARREN G. CARTER
Browns, Ala. Capt., U.S.A.C.

Oct. 9 THOM. J. GANGEN
Selfridge Field, Mich. Lieut., U.S.A.C.

Oct. 18 LEROY A. RAINEY
Shreveport, La. 2nd Lt., U.S.A.C.

Oct. 18 ARTHUR PRESTRIDGE
Shreveport, La. Pvt., U.S.A.C.

Nov. 5 RODNEY E. JONES
Langley Field, Va. Cadet, U.S.A.C.

Nov. 6 H. L. CHILDS
Buffalo, N. Y. Civilian Test Pilot

Nov. 6 EARLE G. HARPER
Rantoul, Ill. Capt., U.S.A.C.

Nov. 6 J. E. DAILY
Rantoul, Ill. Pvt., U.S.A.C.

Nov. 6 F. H. BERFIELD
Rantoul, Ill. Pvt., U.S.A.C.

Nov. 6 W. E. BROWNING
Rantoul, Ill. Civilian Instructor, U.S.A.C.

Nov. 8 J. T. FLOCK
Kelly Field, Texas 1st Lieut., U.S.A.C.

Nov. 8 S. G. BANCROFT
Everglades, Fla. Ensign, U.S.N.

Nov. 16 SHELLY CHARLES
Atlanta, Ga. Civilian

Nov. 24 C. L. SMITH
Diamond Bluff, Wis. U.S.A.C.R.

Dec. 12 A. G. EUBANKS
Kelly Field, Texas Cadet, U.S.A.C.

Dec. 12 GEORGE S. BUCHANAN
Kelly Field, Texas Cadet, U.S.A.C.

Dec. 14 F. L. ANDERSON
San Francisco, Calif. Capt., U.S.A.C.

1935

Jan 8 E. W. ANDERSON
Pittsburgh, Pa. 1st Lieut., U.S.A.C.

Jan. 11 C. W. WELMAN
Brookville, Ind. Corp., U.S.A.C.

Jan. 19 FRANK R. COOK
Tucson, Ariz. Lieut., Air Reserve

Feb. 4 MAURICE GRAHAM
Grand Prairie, Texas Civilian

Feb. 7 W. A. TREMBLY
New Braunfels, Texas Cadet, U.S.A.C.

Mar. 6 JOHN H. PRICE
Guys Store, Tex. Sgt. AM 1st Cl.A.C.

March 16 A. W. RADFORD
Woodville, Texas Lieut. Comm., U.S.A.C.

April 4 J. F. GUILMARTIN
Colton, Calif. Cadet, U.S.A.C.

April 8 A. B. THOMPSON
Norfolk, Va. Lieut., U.S.N.

April 8 A. G. HOLDEN
Norfolk, Va. Lieut., U.S.N.

April 8 J. HULME
Norfolk, Va. U.S.N.

April 14 THOMAS H. SMITH
Elkins, W. Va. Civilian

April 15 W. C. McDONALD, Jr.
Ashland, Ky. Sgt., U.S.A.C.

April 16	J. B. ACKERMAN
Kelly Field, Texas	2nd Lieut., U.S.A.C.
April 17	JOHN W. GREENE, Jr.
Neponset River, Mass.	Civilian
May 6	LEE GEHLBACH
Farmingdale, L. I., N. Y.	Civilian
May 11	E. P. HUNTER, JR.
Albrook Field, C. Z.	Lieut., U.S.A.C.
May 15	MR. BILEL
	Civilian
May 17	LEE GEHLBACH
Near Dahlgren, Md.	Civilian Test Pilot
May 24	ERNEST PIERCY
Boeing Field, Washington	Civilian
June 2	A. F. HEROLD
Taylorstown, La.	Major, U.S.A.C.
June 22	R. I. DUGAN
Banning, Calif.	Capt., U.S.A.C.
June 22	R. GILES
Banning, Calif.	Sgt., U.S.A.C.
June 22	F. H. MACDUFF
Banning, Calif.	Cadet, U.S.A.C.
June 27	WM. A. MATHENY
Tallahassee, Ala.	Capt., U.S.A.C.
July 3	FRANK B. SCHAEDE
Pensacola, Fla.	Lieut., U.S.N.
July 4	CLYDE E. SHOCKLEY
Muncie, Ind.	Civilian
July 15	GEORGE E. LEACH
Seligman, Ariz.	Chief, Nat. G. Bureau
July 20	LYMAN DREW
Tulsa, Okla.	Civilian
July 27	ROBERT CONOVER
Brunswick, N. J.	Civilian
Aug. 20	GEORGE W. WHITE
Watertown, N. Y.	U.S.A.C.
Sept. 5	JOHN L. BAILEY
March Field, Calif.	Sgt., U.S.A.C.
Sept. 8	FRANK B. CONNOR
Langley Field, Va.	Corp., U.S.A.C.
Sept. 8	DANIEL C. MURDOCK
Langley Field, Va.	Pvt., U.S.A.C.
Sept. 8	CHARLES A. JOHNS
Langley Field, Va.	Sgt., U.S.A.C.
Sept. 8	WILLIS S. MARVIN
Langley Field, Va.	Cadet, U.S.A.C.
Sept. 12	ALVAH E. KNIGHT
E. St. Louis, Mo.	Civilian
Sept. 15	SAMUEL F. BROWN
Langley Field, Va.	Major, U.S.A.C.
Oct. 11	WILLIAM A. HATCHER
March Field, Calif.	2nd Lt., U.S.A.C.
Oct. 12	R. BAEZ, JR.
Chillicothe, Ill.	Capt., U.S.A.C.
Oct. 15	CARL W. HARTLEY
South Bend, Ill.	Civilian
Oct. 23	FRANK T. CORBIN
Pensacola, Fla.	Lieut., U.S.N.
Nov. 10	H. W. FISHER
Flemington, N. J.	U.S.A.C.
Nov. 19	NORME D. FROST
Romeo, Mich.	Capt., U.S.A.C.
Dec. 28	J. D. GREER
Murfreesboro, Tenn.	
	U. S. Weather Bureau Pilot



MISS FAY GILLIS

Life saved with IRVIN Air Chute at Valley Stream, N. Y., on September 1, 1929.

1936

Jan. 11	GEORGE L. BROWN
Pittsburgh, Pa.	Pvt., U.S.A.C.
Jan. 20	J. C. KELLEY
Wayne, Mich.	Test Pilot
Jan. 20	CY YOUNGLOVE
Wayne, Mich.	Test Pilot
Jan. 22	F. G. HUIISH
San Antonio, Texas	Cadet, U.S.A.C.
Jan. 24	T. E. LANIGAN
Luke Field, Hawaii	Pvt., U.S.A.C.
Jan. 24	C. E. FISHER
Luke Field, Hawaii	2nd Lieut., U.S.A.C.
Feb. 7	W. A. TREMBLY
New Braunfels, Texas	Cadet, U.S.A.C.
Feb. 12	HARRY McHAYES
Atlanta, Ga.	Sgt., U.S.A.C.
Feb. 12	O. C. GEORGE
Stonewall, Ga.	Capt., U.S.A.C.
Feb. 12	R. B. EPLER
Stonewall, Ga.	1st Lt., U.S.A.C.
Feb. 12	G. RUSSELL
Stonewall, Ga.	Sgt., U.S.A.C.
Feb. 14	H. N. BURHALTER
Barksdale, Field, La.	2nd Lt., U.S.A.C.
Feb. 14	W. K. DURHAM
Mansfield, La.	Pvt., Q.M. Det.
Feb. 18	W. J. KLIFFEL
Sour Lake, Texas	Sgt., U.S.A.C.
Feb. 27	G. E. RICE
Florida	Lieut., U.S.A.C.

UNITED STATES (Continued)

March 14 E. R. CAMP
Colebrook Nat'l Guard Reservation, Pa.
2nd Lieut., Air Reserve

Mar. 20 C. F. BOND
Nacogdoches, Texas Major, U.S.A.C.

March 30 J. B. WHEATLEY
Langley Field, Va. Aero. Engineer

March 30 W. H. MacAVOY
Langley Field, Va. Test Pilot

April 9 M. M. SIMMONDS
Randolph Field, Texas 2nd Lt., U.S.A.C.

April 18 JAMES A. PHILPOTT
Mather Field, Calif. Cadet, U.S.A.C.

April 20 H. T. McCORMICK
Elizabeth, Ind. Major, U.S.A.C.

April 29 FRANK J. BENNETT
Donville, Va. 2nd Lt., Air Reserve

May 8 FOSTER THOMAS
Savannah, Ga. Test Pilot

May 8 LEON E. SHARON
Kewanee, Miss Capt., U.S.A.C.

May 8 MALCOLM F. LINDSEY
Kewanee, Miss. Major, Infantry

May 11 JAMES L. BLEDSOE
Flying Cadet

May 19 DOUGLAS W. SMITH
March Field, Calif. Flying Cadet

May 22 T. A. WHITEHURST
Hornsby, Tenn. Test Pilot

May 28 JAMES L. MALONE
Dayton, Ohio Test Pilot



PAUL AZCARATE
Captain, Chief Test Pilot
(Mexican Air Service)

Life saved with an IRVIN Air Chute
on April 13, 1931, when controls failed
to work at an altitude of 500 feet.

May 27 W. W. McCONNELL
Sycamore, Ohio 1st Lt., Air Reserve

May 27 J. E. ALBERT
Sycamore, Ohio 1st Lt., Air Reserve

May 27 E. G. CARLISLE
Brookville, Pa., Jefferson County
Lieut., Pa. Nat'l Grd.

May 27 C. G. CRAVEN
Brookville, Pa., Jefferson County
Lieut., Pa. Nat'l Grd.

June 4 BYRON E. GATES
Bedford, Ore. Major, U.S.A.C.

June 4 CHAS. E. ROBBINS
Bedford, Ore. Pvt., U.S.A.C.

June 6 P. G. SMITH
Syosset, L.I., N. Y. Staff Sgt., U.S.A.C.

June 6 DALENE E. BAILEY
Syosset, L.I., N. Y. Cadet, U.S.A.C.

June 7 WM. B. WRIGHT
Town Hill, Ohio Lt. Col., U.S.A.C.

June 19 E. N. BACKUS
Nr. Barksdale Field, La.
2nd Lieut., Air Reserve

June 22 CHAS. E. ROBERTSON
Florida Student Naval Aviator

July 2 JOHN R. VANEVERA
Lieut., U.S.N.

July 22 C. O. HOBSON
Dunreith, Ind. Civilian

July 22 JOHN CUTTING
Dunreith, Ind. Civilian

July 22 W. WM. CUMMINGS
Dunreith, Ind. Civilian

July 22 J. A. WEATHERFORD
Dunreith, Ind. Civilian

July 22 M. D. McDANIEL
Dunreith, Ind. Civilian

July 25 M. S. CRANFILL
Denbigh, Va. Pvt., U.S.A.C.

July 25 LLOYD EYRE
Denbigh, Va. Flying Cadet, U.S.A.C.

July 28 R. C. WOOD
Kirby, Texas Flying Cadet, U.S.A.C.

July 29 HOWARD H. PAVLAT
San Diego, Calif. ACMM(NAP), U.S.N.

Aug. 6 WALTER MILLER
Luling, Texas U.S.A.C.

Aug. 6 SGT. MALJEWSKI
Luling, Texas U.S.A.C.

Aug. 6 H. B. THATCHER
Kelly Field, Texas Lt., U.S.A.C.

Aug. 13 NORBERT D. FLINN
New Kent, Va. Pvt., U.S.A.C.

Aug. 20 EDWARD F. KAYSER
Mitchel Field, N. Y. Pvt., U.S.A.C.

Aug. 20 MICHAEL F. CYCON
Mitchel Field, N. Y. Pvt., U.S.A.C.

Aug. 25 TROY KEITH
Kelly Field, Texas Cadet, U.S.A.C.

Oct. 5 LOREN L. STRAW
Kopowsin, Washington Pvt., U.S.A.C.

Oct. 6 ROBERT H. PROCTOR
Pensacola, Fla. Av. Cadet, U.S.N.

Oct. 11 SYLVAN O. HUGELLEN
Mason City, Iowa Civilian

Oct. 23 F. W. EVANS
Philadelphia, Pa. AMM2c, U.S.N., Res.

Nov. 2 G. L. PENTZ
Loxley, Ala. Av. Cadet, U.S.N.R.

Nov. 17 ARTHUR ZENKE
Pvt., U.S.A.C.

Dec. 8 S. R. PATTERSON
Kelly Field, Texas Fl. Cadet, U.S.A.C.

Dec. 14 HENLEY V. BASTIN, JR.
Houston, Texas Cadet, U.S.A.C.

Dec. 14 STERLING G. HARVEY
Houston, Texas Cadet, U.S.A.C.

Dec. 21 M. W. SCHOEPHOESTER
Randolph Field, Texas Flying Cadet, U.S.A.C.

Dec. 27 BEN ESTES
Mineral Wells, Texas Civilian Pilot

T. O. RITTHALER
Hadley Airport, N. J. Civilian

J. L. HAMMACK
Crestview, Fla. Pvt., U.S.A.C.

B. W. CHIDLAW
Crestview, Fla. Capt., U.S.A.C.

1937

Jan. 2 T. S. MOORMAN
Merrick, N. Y. 1st Lt., U.S.A.C.

Jan. 7 JOHN C. KENNEDY
San Antonio, Texas Major, U.S.A.C.

Jan. 7 ELMER E. McKESSON
San Antonio, Texas Lieut., U.S.A.C.

Feb. 18 P. R. LEARNED
nr. Monroe, Ala. Cadet, U.S.A.C.

Feb. 19 M. W. STELL
Pensacola, Fla. Cadet, U.S.N.

ARGENTINE

1927

Feb. 27 HERBERT A. DARGUE
Buenos-Aires Major, U.S.A.C.

Feb. 27 ENNIS C. WHITEHEAD
Buenos-Aires 1st Lieut., U.S.A.C.

April 12 GEN. AUGUSTIN JUSTO
La Rioja Minister of War

1935

March 26 JUAN F. FABRI
Argentina Lieut.

AUSTRALIA

1930

May 15 W. G. RAE
Point Cook Pilot Officer, A.R.A.F.

BELGIUM

1931

July 2 M. DE CONINCH
Adjutant, B.A.F.

1932

Oct. 4 ROBERT WILMET
Liège Pilot, B.A.F.

Oct. 27 F. LE GRANDE
Diest Capt., B.A.F.



LIEUT. WALTER LEES

U. S. Air Corps, O.R.C.

Life saved with an IRVIN Air Chute on June 13, 1924, when controls failed at the extremely low altitude of 150 feet.

1933

Feb. 17 OSCAR BORISEWITZ
Serg., B.A.F.

May 1 ADJUTANT SAUVENIERE
B.A.F.

July MARCEL HANSET
Sgt., B.A.F.

July 27 E. TOLLET
Capt., B.A.F.

July 27 M. VERMEULEN
B.A.F.

Sept. 23 CAPT. BESIN
B.A.F.

Sept. 23 COL. DESMENT
B.A.F.

1934

Feb. 9 LUCIEN THEYS
Diest Sgt., Belgian Air Force

April 23 LEOPOLD MOUZON
Liège Adj., Belgian Air Force

April 23 PHILIPPE JOMOUTON
Liège Lieut., Belgian Air Force

June 5 CAPT. D'HOORE
Belgian Air Force

Aug. 23 LEOPOLD MOWZON
Brussels Adj., Belgian Air Force

Sept. 13 ADJ. PENSENDORFER
Tirlement Military Test Pilot

Dec. 14 SGT. VERLINDEN

1935

July V. MOREAU
Belgium

July ROY
Belgium Sgt.

BELGIUM (Continued)

July 16 E. D'HOORE
Belgium Capt. (2nd Jump)
Sept. 2 LOUIS CROOY
Brussels, Belgium Adjutant
Sept. 2 MICHEL DE PRET ROOSE DE
CALESBERG
Brussels, Belgium Adjutant
Sept. 4 ISIDORE CARYN
Evere Adjutant (2nd Jump)
Oct. 8 R. VERLAINE
Evere Sgt.
Oct. 8 ROY
Evere Sgt. (2nd Jump)

BOLIVIA

1933
Sept. 2 JUAN PANDO
Lapaz 1st Lieut., B.A.F.

BRAZIL

1930
May 21 AMARILIO VIEIRA CORTEZ
Rio de Janeiro Lieut., B.N.
1933
Feb. 16 AUGUSTO RODRIGUES RENATO
Campo dos Affonsos Lieut., B.A.A.S.

CANADA

1929
May 17 JACK CALDWELL
Montreal, Que. C.T.P., Can. Vickers, Ltd.
Aug. 27 J. M. READY
Lac du Bonnett, Mant. Sgt., C.R.A.F.
1930
June 2 M. F. SLAGHT
Kitchener, Ont. Lieut., U.S.A.C.
1931
Sept. 28 F. B. BRISCO
Camp Borden, Ont. Sgt., R.C.A.F. (Res.)
Dec. 19 E. C. BURTON
Chatham, Ont. Civilian
1932
July 26 F. M. GOBEIL
Belleville, Ont. Flying Officer, C.R.A.F.
1935
May 2 G. C. UPSON
Lac de la Ronde, Canada Civilian

CHILE

1930
Oct. 1 DAVID BOBADILLA
El Bosque Lieut., C.A.F.
1933
Dec. 27 E. M. AGUIRO
El Borgue Lieut., Chilean Air Force

CHINA

1927
Aug. 18 ROBERT G. FREY
Hsin Ho Tech. Mstr. Sgt., U.S.M.C.

1933

Jan. 13 TANG PO SUN
Shanghai, China Central Aviation School
Sept. 13 TANG PAO SUN
Hangchow Student, C.A.F.
Oct. T. Y. HU
Shanghai Cadet, C.A.F.

1934

July 12 F. R. WELCH
Shanghai Civilian

1936

May 14 A. SOLLIS
Singapore, China Sgt.
May 21 JIMMY LEE
Liu Chow, China Test Pilot

COLUMBIA

1934
May 22 DONALD N. WACKITZ
Cartagena Civilian Instructor

CUBA

1934
Aug. 12 L. J. POVEY
Havana Chief Instructor, C.A.F.
Oct. 8 W. J. MULLINS
Guantanamo Bat, Cuba Lieut., U.S.A.C.
1935
Feb. 14 GUILLERMO S. GONZALEZ
Havana, Cuba Lieut., Republic of Cuba

DENMARK

1927
June 30 J. BJARKOW
Copenhagen Lieut., D.A.F.
1928
July HENRIK HARMS
Copenhagen Lieut., D.A.F.
1933
Nov. 22 PAUL OLSEN
Copenhagen, Den. Flight Lieut., D.A.F.
1934
Aug. 11 L. M. S. JACOBSEN
Copenhagen Lieut., Danish Air Force
Aug. 11 HANS. WOLFF
Copenhagen Sgt., Danish Air Force
1935
Aug. 20 C. C. LARSEN
Denmark Capt., Danish R.A.F.
Aug. 20 L. M. JACOBSEN
Denmark Lieut., Danish R.A.F.
Aug. 20 N. K. PETERSEN
Denmark Lieut., Danish R.A.F.

DUTCH EAST INDIES

1934
Mar. 14 F. F. W. VAN VELTHOOVEN
Bandoeng Lieut., Royal Dutch Air Force

EGYPT

1930
Jan. 23 W. J. SOMERSET THOMAS
Ab Sueir Flt. Lieut., B.R.A.F.

Jan. 23 REV. K. C. H. WARNER
Ab Sueir Chaplain, R.A.F.

1931

May 18 W. R. FRASER
Ismailia Sgt. Pilot, B.R.A.F.

May 18 D. J. PILCHER
Ismailia Sgt. Pilot, R.A.F.

1935

Sept. 23 J. G. McARTHUR
Cairo

Sept. 23 T. CAMPBELL BLACK
Cairo Capt.

Oct. J. L. HALLEWELL
Port Said Lieut., R.N.

ENGLAND

1926

June 6 C. J. PENTLAND
London Pilot Officer, R.A.F.

July 1 E. R. C. SHOLEFIELD
Weybridge, Chief Test Pilot, Vickers, Ltd.

July 20 H. C. STEANES
Andover Sgt., R.A.F.

July 20 W. J. FROST
Andover Sgt., R.A.F.

July 21 W. J. FROST
Andover Sgt., B.R.A.F.

July 28 W. E. PARRISH
Ramsgate Sgt., R.A.F.

1927

April 22 DAVID GREIG, D.F.C.
Chelsham Flt. Lieut., R.A.F.

May 25 G. W. TUTTLE
Hendon Flying Officer, R.A.F.

Nov. 9 H. H. GREEN
R.A.F.

1928

Feb. 17 LEONARD ARTHUR WALSH
Folkstone Flying Officer, R.A.F.

April 3 V. O. EYRE
No. Weald Flying Officer, R.A.F.

April 7 F. S. TROUT
Brentwood Pilot Sgt., R.A.F.

Aug. 16 LESLIE C. BENNETT
London Flying Officer, R.A.F.

Dec. 10 EDWARD C. GAYLEY
Cambridgeshire Flying Officer, R.A.F.

1929

Jan. 26 P. G. THOMPSON
Grantham Flying Officer, R.A.F.

Jan. 30 J. W. GILLAN
Diss, Norfolk Flying Officer, R.A.F.

March 1 S. L. G. POPE
Yate Aerodrome Flt. Lieut., R.A.F.

March 1 J. G. FREEMAN
Kenley Sgt., R.A.F.

May 23 BONHAM CARTER
So. Farnborough Flt. Lieut., R.A.F.

May 23 SCOTT HALL
So. Farnborough R.A.F.

June 10 R. BARBOUR
Farnborough Flt. Lieut., R.A.F.

June 11 F. D. TURNER
Paddlesworth Flying Officer, R.A.F.



WILLIAM C. McDONALD, Jr.

Sergeant, U. S. Air Corps.

Life saved with an IRVIN Air Chute
on April 15, 1935, when engine failed at
1,000 feet.

Aug. 13
Brantham

Sept. 3
Grantham

Sept. 3
Grantham

Sept. 4

Oct. 23
Digby

Nov. 7
Kenley

Nov. 7
Kenley

Nov. 29
Bristol

Dec. 22
Glasgow, Scot.

1930

Jan. 10
Grantham

April 10
Cranwell

April 11
Chichester

April 11
Chichester

April 17
Hornchurch

April 22
Chester

April 29
Hornchurch

G. W. PHILLIPS
Pilot Officer, R.A.F.

L. R. S. FREESTONE
Pilot Officer, R.A.F.

A. A. FORBES
Pilot Sgt., R.A.F.

W. E. PRUDIN
Flt. Lieut., R.A.F.

B. PADDON
Pilot Officer, R.A.F.

R. S. COLLINS
Flying Officer, R.A.F.

F. L. WHITE
Sgt., R.A.F.

C. R. L. SHAW
Civilian

DAVID F. McINTYRE
Flying Officer, R.A.F.

R. HUGH LITTLE
R.A.F.

C. E. LITTLER
Flt. Cadet, R.A.F.

K. S. BRAKE
Flying Officer, R.A.F.

J. H. PERCY
Flying Officer, R.A.F.

V. KOBAYASHI
Lieut., I.J.A.S.

SAMUEL R. GROOM
Flying Officer, R.A.F.

D. R. BYRNE
Flying Officer, R.A.F.

ENGLAND (Continued)

May 1 N. STRANGEWAYS LESMERE
Digby Pilot Officer, R.A.F.

June 4 T. A. CAMPBELL
Bristol Flying Officer, R.A.F.

June 6 D. R. C. HODSON
Tangmere Lieut., R.N.

June 6 W. F. BRYAN
Tangmere Corp., R.A.F.

June 6 J. E. ANNING
Tangmere R.A.F.

June 11 LORD MALCOLM A. DOUGLAS-
HAMILTON
Bicester Pilot Officer, R.A.F.

June 11 W. HAGAN
Bicester L.Ac., R.A.F.

June 19 J. H. PERCY
Tangmere Flying Officer, R.A.F.

Oct. 27 H. P. F. FAGAN
Wittering Flying Officer, R.A.F.

1931

Jan. 5 HERBERT V. HUDSON
Bircham Pilot Sgt., R.A.F.

Jan. 5 CHARLES H. MOLYNEUX
Bircham Air Gunner, R.A.F.

March 9 P. C. GINN
Upavoh Witta Sgt. Pilot, R.A.F.

April 13 C. M. CHAMBERS
Essex Flying Officer, R.A.F.

May 6 E. R. ALEXANDER
Observer, R.A.F.

May 7 E. S. B. CLARKE
Banbury Flt. Lieut., R.A.F.



MILOS R. UZUNOVIC

Lieutenant, Yugoslavian Air Force.
Life saved with an IRVIN Air Chute
on September 27, 1934, when machine
went into a back spin at low altitude.

May 7 W. H. KYLE
Banbury Pilot Officer, R.A.F.

May 7 K. L. M. DAVIS
Aldershot Flying Officer, R.A.F.

May 7 A. S. BLAKE
Aldershot Sgt., R.A.F.

May 8 K. G. WEIGHILL
Flying Officer, R.A.F.

May 13 E. D. GREEN
Digby Pilot Officer, R.A.F.

May 18 W. R. FRASER
England L. Ac., R.A.F.

May 18 D. J. PILCHER
England Sgt. Pilot, R.A.F.

June 2 D. O'BRIEN
Ac 1, R.A.F.

June 11 C. L. TAPLEY
Digby Pilot Officer, R.A.F.

June 11 R. W. OLDER
Witby Ac., R.A.F.

June 13 A. G. PICKERING
Felixstowe Flt. Lieut., R.A.F.

June 13 WOODWARD NUTT
Felixstowe Civilian

June 30 J. BRADLEY
Cranwell Flt. Cadet, R.A.F.

July 22 G. K. ST. O'MORRIS
Sealand Flying Officer, R.A.F.

Oct. 19 H. SETON BROUGHALL
Suffolk 2nd Lieut., R. A. F.

Oct. 26 R. D. OLDER
Wilts L. Ac., R.A.F.

Nov. 12 L. R. MOUATT
London Flying Officer, R.A.F.

1932

March 10 R. G. O. S. TURNER
Gasport Flying Officer, R.A.F.

March 11 J. G. YOUNGHUSBAND
Wilts Pilot Officer, R.A.F.

April 27 E. D. JACK
Sussex Pilot Sgt., R.A.F.

May 26 G. J. S. CHATTERTON
Sussex Flying Officer, R.A.F.

June 8 J. T. WHITLEY
Tangmere Flt. Lieut., R.A.F.

July 5 VIVIAN S. PARKER
Suffolk Flgt. Lt., R.A.F.

July 18 T. C. TRAILL
Andover Flt. Lieut., R.A.F.

July 18 N. A. CLEMO
Andover Corporal, R.A.F.

Sept. 17 F. R. DUNWORTH
Kent Flying Officer, R.A.F.

Oct. 7 F. E. BROOKS
Guilford Corporal, R.A.F.

Oct. 7 W. H. QUANE
Guilford L.Ac., R.A.F.

Oct. 7 G. H. RALPHS
Guilford Ac. 1c., R.A.F.

Oct. 7 R. C. LEWIS
Guilford Ac. 1c., R.A.F.

Nov. 7 C. MACKENZIE
Waddington Ac., R.A.F.

Dec. 21 LESLIE F. BROWN
Kent Flying Officer, R.A.F.

1933

Feb. 20	A. M. ENGINEER Flgt. Cadet, R.A.F.
March 21 Suffolk	A. J. PEGG Flying Officer, R.A.F.
April 11	R. R. NASH Flgt. Lieut., R.A.F.
May 19	JAMES F. MOIR Flgt. Lieut., R.A.F.
June 12	M. G. FRIESE-GREENE L. Ac., R.A.F.
June 12	A. C. DREW Flying Officer, R.A.F.
Sept. 11 Middlesex	S. STANILAND Lieut., R.A.F.
Nov. 23 Brooklands	J. SUMMERS C. T. Pilot, Vickers, Ltd.
Nov. 23 Brooklands	J. RADCLIFFE Engineer, Vickers, Ltd.
Nov. 23 Chadwell Heath	I. G. MacKAY Pilot Officer, R.A.F.

1934

Jan. 18 Manchester	F. B. THOMPSON Test Pilot, A. V. Roe
March 4 Romsey, Hants	L. JOBBINS Pilot Sgt., R.A.F.
March 6 Hamble Hants	W. S. SOULE Student, R.A.F.
March 11 Filton, Bristol	W. Kent LeMAY F/O R.A.F. (Reserve)
March 27 Eastchurch	A. E. FARMER Sgt., R.A.F.
May 5 Grantham	H. B. CHESTER F. O., R.A.F.
May 5 Grantham	R. MIDDLETON Sgt., R.A.F.
May 5 Grantham	J. H. LEWIS A.C.I., R.A.F.
May 16 Merstham	DONALD S. BROOKES Flt. Lieut., R.A.F.
May 16 Merstham	A. D. W. WILLIS Sgt., R.A.F.
June 25 Yate	H. MACKENZIE KERR F/O, Bristol Test Pilot
Aug. 21 Woodbridge	H. J. PENROSE Westland Chief Pilot
Sept. 10 Southampton	K. T. MURRAY
Sept. 12 Farnborough	D. M. HARRISON F/Lt., R.A.F.
Sept. 12 Farnborough	G. P. MARVIN F/Lt., R.A.F.
Sept. 12 Farnborough	H. De C. A. WOODHOUSE Pilot Officer, R.A.F.
Sept. 12 Farnborough	C. A. FIDDICK Corp., R.A.F.

1935

May 20 Wealdstone, England	P. W. JOHNSON Flight Officer
July 2 Cranwell, England	W. A. KIRKHAM



CAPTAIN ANTONIO JORDAN

Polish Air Force

Life saved with an IRVIN Air Chute at Torun, near Warsaw, Poland, on May 30, 1928, when the controls of his airplane failed while engaged in aerobatics.

Aug. 16 England	A/P.O. J. MORGAN EVANS R.A.F.
Aug. 24 Colnbrook, England	C. E. SLEE R.A.F.
Oct. 21 Cranwell, England	W. I. C. INNES Flight Cadet
Nov. 27 Wittering, England	L. A. C. MacDONALD
Dec. March Chapel, Lincs, England	ALEX HENSHAW

1936

Jan. 23 Twyford, Nr. Reading, England	F. W. STENT
May 14 Sutton Bridge, England	S. BOQUET Pilot Officer
June 9 Aden	J. A. RICHARDS Pilot Officer
June 9 Aden	EDWARD GRAHAM Pilot Officer
July 7 Snodland, England	H. E. DAVIS Pilot, Sgt.
July 21 Holton Camp, Aylesbury, England	J. R. QUERTIER
Aug. 26 Reading, England	RAYMOND J. SHELLARD
Oct. 7 Navenby, Lincs, England	H. F. BURTON Flight Cadet
Dec. 12 Moorside, nr. Oldham, England	D. J. M. KEYES Leading Aircraftsman

ENGLAND (Continued)

Dec. 12 C. P. VILLIERS
Moorside, nr. Oldham, England
Flight Lieut.

Dec. 12 JOHN McCANN
Moorside, nr. Oldham, England

Dec. 12 TOMLIN
Moorside, nr. Oldham, England
Flight Officer

Dec. 19 WROATH
Woodbridge, England
Sgt.

FINLAND

1934
Jan. 29 UUNO MAKELA
Borga Lt., Finnish Air Force

FRANCE

1935
Oct. 28 M. GUY DE CHATENBRUN
France

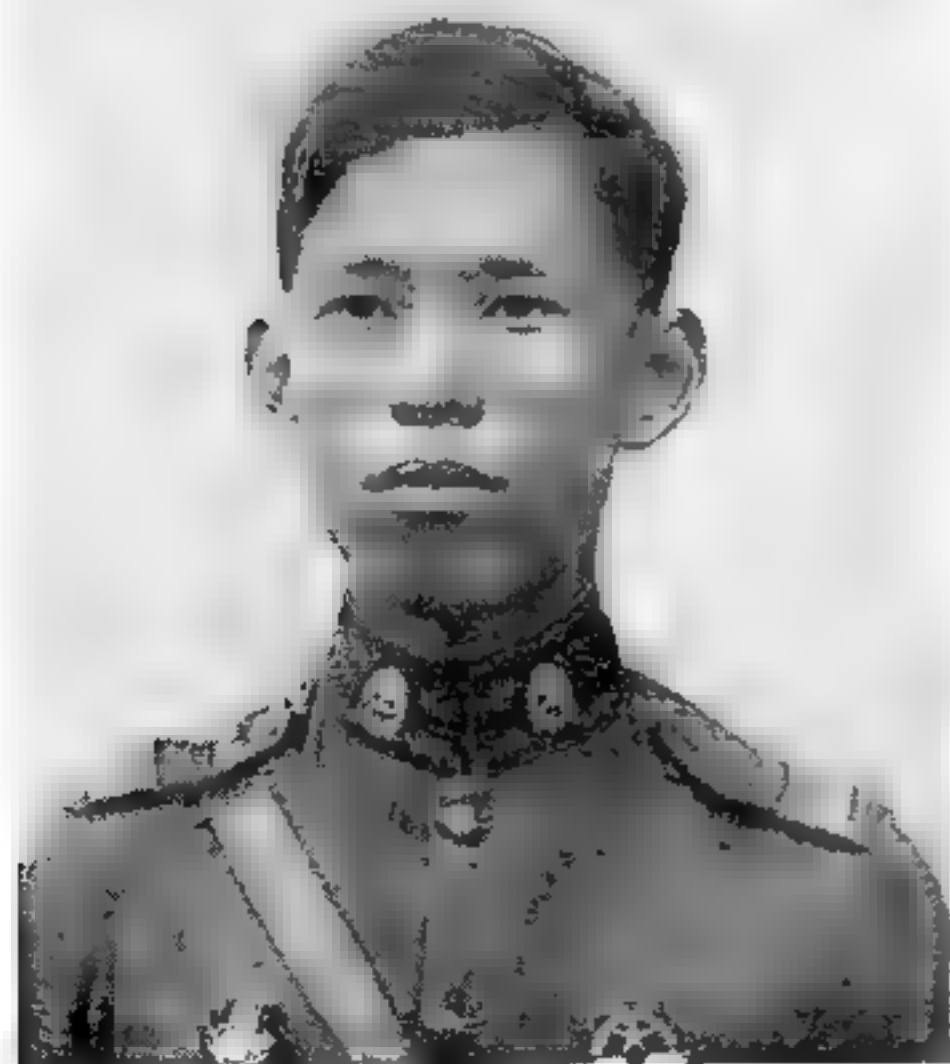
GERMANY

1931
Sept. 28 GERHARD VOSS
Berlin Civilian

1932
Sept. 21 HERR VON FLOTOW
Braunschweig Civilian

1934
July 7 HERR ERNEST UDET
Templehof

1936
March 28 THOENES
Germany Dipl. Ing.



NAM BHANDH NAGROB

Lieut., Royal Siamese Air Force.
First aviator in Siam to save his life
with an IRVIN Air Chute (November
15, 1929).

GIBRALTER

1932
Feb. 19 F. F. WHISTONDALE
Flying Officer, R.A.F.

1936
June 30 J. N. GARNETT
Gibraltar Lieut., R.N.

June 30 G. C. W. FOWLER
Gibraltar Lieut., R.N.

June 30 M. DERBYSHIRE
Gibraltar Telegraphist A G

GREECE

1931
June 19 G. FALCONAKIS
Athens Lt. Comdr., G.A.F.

June 19 P. VANNOPOULS
Athens Mech., G.A.F.

1932
July 22 ORESTES STAMATION
Athens Ensign, G.A.C.

HOLLAND

BODAAN
Lt., Dutch Air Reserve

INDIA

RONALD E. WATTS
Flying Officer, R.A.F.

H. L. McCULLOCH
Flying Officer, R.A.F.

C. P. HANLON
Flying Officer, R.A.F.

A. E. PAISH
Flight Lieut., R.A.F.

H. KEEN
509975, L.A.C.

1936
Sept. 21 L.A.C. J. H. BUNYAN
Peshawar, India

IRAQ

1930
April 15 L. E. M. GILLMAN
Shaibah Flt. Lt., R.A.F.

Sept. 8 H. L. McCULLOCH
Agra, Iraq Fl. Off. R.A.F.

Sept. 3 C. P. HANLON
Agra, Iraq Fl. Off. R.A.F.

Oct. 1 E. C. PASSMORE
Mosul Flying Officer, R.A.F.

Oct. 1 A. C. BISHOP
Mosul Flying Officer, R.A.F.

1931
Jan. 30 H. E. ROUS
Mosul Pilot Sgt., R.A.F.

Jan. 30 A. CAMERON
Mosul Ld. Aircraftsman, R.A.F.

June 5 C. G. R. LEWIS
Mosul Pilot Sgt., R.A.F.

June 5 E. GROOMBRIDGE
Mosul L. Ac., R.A.F.

Nov. 12 CHARLES E. GILROY
Mosul Aircraftsman, R.A.F.

Dec. 11
Mosul

CHARLES E. GILROY
Aircraftsman, R.A.F.

1932
April 2
Mosul
April 2
Mosul

H. W. WAYLEN
Pilot Sgt., R.A.F.
G. W. BROWN
Aircraftsman, R.A.F.

JAPAN

1928
June 13
Tokyo
July 26
Tokyo
August 22
Tokorozawa

S. NAKAO
Civilian
I. ISHIHARA
Lieut., I.J.A.
T. MIJASAWA
Lieut., I.J.A.

1929
May 17
Tokyo
June 11
Tokyo
July 13
Mieken
Oct. 9
Gifu
Dec. 18
Tokyo
Dec. 19
Taiwan

S. SAITOH
Capt., I.J.A.
Y. YOKOYAMA
Lieut., I.J.A.
K. HARADA
Capt., I.J.A.
Y. VAMASHITA
Lieut., I.J.A.
H. ODAWARA
Lieut., I.J.A.
G. YAMAMOTO
Lieut., I.J.A.

1930
March 8
Chosen
July 21
Karafuto
July 21
Karafuto
Aug. 22
Meiken
Oct. 22
Gifu
Nov. 21
Gifu

M. EYAMA
Lieut., I.J.A.
T. MIYAKE
Capt., I.J.A.
T. NONAKA
Lieut., I.J.A.
T. SATOH
Lieut., I.J.A.
CHOHME UI
Sgt., Maj., I.J.A.
KANBEI TANAKA
Civilian

1931
Jan. 13
Chosen
Jan. 13
Chosen
April 8
Tokyo
April 22
Tokyo

TOSHIO KATOH
Capt., I.J.A.
MASANAO ABE
Sgt. Maj., I.J.A.
MITSUYOSHI ITOH
Pilot, I.J.A.
TIZOH OKAMOTO
Sailor, I.J.N.

JAVA

1936
Feb. 27
Bandoeng, Java

J. P. van HELSDINDEN
Flight Lieut.

LATVIA

1934
June 28
Riga

ALEXANDER ZARINS
Marine Capt., Latvia Air Service

MALTA

1934
Feb. 12
Malta

P. A. R. BREMRIDGE
Fleet Air Arm Pilot

MEXICO

1929
Aug. 27
Hermosillo

JOE LOUTZEMHEISER
1st Lieut., U.S.A.C.



RENATO AUGUSTO RODRIGUES

Lieut., Brazilian Army.

Life saved with an IRVIN Air Chute on February 16, 1933, when his airplane collided with another in mid-air above Rio de Janeiro.

1931

April 10
Mexico City
April 13
Mexico City

CAPT. RAUL AZCARATE
Capt.
CAPT. RAUL AZCARATE
Chief Test Pilot

1936

Dec. 3
Mexico

MARIANO MUNOZ PEREZ
Capt. Flying Instructor

NEW ZEALAND

1931

Jan. 9
Waikato

G. W. E. CLANCEY
Civilian

NICARAGUA

1931

March 24
Managua
March 23
Managua
March 24
Managua

JOHN P. GRANDO
Ph. M.I.C., U.S.M.C.
JOHN C. TORIAN
Ph. M. Ic., U.S.N.
JOSEPH J. VLACH
PFC., U.S.M.C.

1932

Aug. 21
El Garabo
Aug. 21
El Garabo

C. C. COFFMAN
Lieut., U.S.M.C.
R. R. TOWNSEND
Lieut., U.S.M.C.

PALESTINE

1932

May 23
Gaza

L. MENET
L.Ac., R.A.F.

1934

June 18
Ramleh
June 18
Ramleh

O. W. DENNEHY
Flt. Lieut., R.A.F.
H. LEETE
L.Ac., R.A.F.

PANAMA

1932
Sept. 19 EDW. N. HAMILTON
Penonome, Pan. 2nd Lieut., U.S.A.C., R.

1935
Nov. 20 L. M. BAWSEL
Ocu, Rep. of Panama Major, U.S.A.C.
Nov. 20 R. D. PRESCOTT
Ocu, Rep. of Panama Major, U.S.A.C.
Nov. 20 W. R. TANNER
Ocu, Rep. of Panama Sgt., U.S.A.C.

1936
May 12 N. R. TURNER
Penonome, Rep. of Panama Pvt., U.S.A.C.
May 12 W. A. KNIGHT
Penonome, Rep. of Panama Staff Sgt., U.S.A.C.
May 12 D. W. BENNER
Penonome, Rep. of Panama Capt., U.S.A.C.
June 30 JOHN W. KOMDT
Bocas del Toro, Panama Pvt., U.S.A.C.
June 30 ISAAC W. OTT
Bocas del Toro, Panama 1st Lt., U.S.A.C.

POLAND

1928
May 30 ANTONIO JORDAN
Torun Pilot Officer, P.A.F.
June 21 HENRY PAWLICKI
Torun Pilot Officer, P.A.F.
LEON OZORKIEWICZ
Sgt., P.A.F.
KONRAD SADOWSKI
Lieut., P.A.F.



LIEUT. NILS SODERBERG

Swedish Royal Air Force

Life saved with an IRVIN Air Chute on August 4, 1926, at Malmsslatt Aerodrome, Linkoping, Sweden, when controls failed in a spin.

MICHAL DLUTTO

Sgt., P.A.F.
JAN BALCER
Sgt., P.A.F.
CZESLAW LASKOWSKI
Corp., P.A.F.

1929
Dec. 22 STEFAN PAWLIKOWSKI
Capt., P.A.F.
KAZIMIERZ NIEDZWIEDZKI
Lieut., P.A.F.
EUGENJUSZ SACZEWSKI
Lieut., P.A.F.
STANISLAW MACEK
Corp., P.A.F.
HENRYK R. MOZDZEN
Sgt., P.A.F.
STANISLAW CHECKIEWICZ
Sgt., P.A.F.

1930
March 13 M. EDER
Pilot, P.A.F.
W. WYSZOMIRSKI
2nd Lieut., P.A.F.
A. DEMBINSKI
Sgt. Pilot, P.A.F.

1931
July 6 MARJAN DYDZIUL

1932
Aug. 22 FRANCISZEK SKIBA
Monasterzyska Pilot Observer, P.A.F.

1933
April 12 CHLOPIK TADEUSZ
Torun, Poland Pilot-Observer, P.A.F.
May 11 LADYSLAW USTYANOWSKI
Deblin, Poland Platoon Pilot, P.A.F.
Oct. 2 FELIKS GAZDA
Poland Polish Air Service

1934
April 19 THADDEUS LUKASZKIEWICZ
Lwow Lieut., Polish Air Force
April 19 THADDEUS NOWAK
Lwow Sgt., Polish Air Force
May 11 LADYSLAW USTYANOWSKI
Peblin Polish Air Force
May 30 KUSCK FRANCISZEK
Premysl Lieut., Obs., Polish Air Force
June 5 MALOROSWSKI ANDRZEJ
Poznan Corp., Pilot, Polish Air Force
July 6 MARJAN DYDZIUL
Polish Air Service

Aug. 22 SOCHACKI BOLESŁAW
Lwow Pilot, Polish Air Force
Aug. 22 HALICKI MIECSYTAW
Lwow Pilot, Polish Air Force
Aug. 22 OSUCHOWSKI ZBIGNIEW
Lwow Lieut., Obs., Polish Air Service
Aug. 22 PEUTZ JOSEF
Lwow Lieut., Obs., Polish Air Service

1936
May 28 ALEXANDER GABSZEWICZ
Grudziadz, Poland 2nd Lt., P.A.F.

ROUMANIA

1934
Autumn CONSTANTINESCU
Roumania Lieut.
Autumn FRIM
Roumania Engineer

1935

Sept. 12
Roumania
Sept. 12
Roumania

A. POPISTEANU
Capt.
A. PAPANA
Lieut.

SCOTLAND

1930

March 12
Glasgow, Scot.
Oct. 21
Fife

EDWARD E. SMITH
Mech., R.A.F.
L. P. JAMISON
Lieut., R.A.F.

1934

June 17
Fife

R. J. COOPER
Lieut., R.N.

SIAM

1929

Nov. 15
Changrad Lobburi

NAM BHANDH NAGROB
Lieut., R.S.A.F.

1931

March 4
Don Muang

CHAROON KEIDSANAROJA
Lance Corporal, R.S.A.F.

1931

Sept. 22

BJERA CHOOPRAYOON
Lieut., R.S.A.F.

1932

Nov. 24
Donmung

SAVAI CHANTARANGSRI
Corp., R.S.A.F.

1934

June 7
Bangkok

SANIT SAENGBANDHU
Corp., Royal Siamese Air Force

SOUTH AFRICA

1931

March 21
Pretoria

G. A. KING
Cadet, S.A.A.F.

1932

Oct. 1

P. SKEAD
Lieut., S.A.A.F.

1935

Nov. 4
Irene, So. Africa

C. S. LEISEGANG
Cadet

SPAIN

1930

July 4
Guadalajara

ALEJANDRO GOMEZ S.
Commandte, A.M.E.

July 4

A. GOMEZ SPENCER

July 12

ANTONIO MELENDREAS S.

Los Alcazarea

Lieut., A.M.E.

Nov. 14

AUGUSTIN GOBART L.

Cuatro Viento

Lieut., A.M.E.

Nov. 14

BUENAVENTURA PEREZ P.

Cuatro Viento

Lieut., A.M.E.

1931

June 12

RAMON RODRIGUEZ A.

Aerodrome Leon

Capt., A.M.E.

June 12

ENRIQUE GARDENAS R.

Aerodrome Leon

Lieut., A.M.E.

June 27

ANTONIO PEREZ DEL CAMINO

Tetman

Capt., A.M.E.

July 21

MANUEL ROJAS S.

Tarragona

Sub-Officer, A.M.E.

July 21

JULIO HERNANDEZ L.

Tarragona

Sgt., A.M.E.



NURI OLMEZ

Lieutenant, Turkish Air Force.

Life saved with an IRVIN Air Chute
on October 20, 1934, when his airplane
collided with an other in mid-air.

Oct. 6

Spain

A. G. SPENCER

Commander

Oct. 6

Guadalajara

GONZALO TABOADA S.

Capt., A.M.E.

1932

Feb. 5

ANASTASIO FERNANDEZ

Mech. Montador, A.M.E.

April 19

Spain

J. L. A. REYS

N.C.O.

Sept. 9

Aerodrome Leon

RAFAEL BELMONTE V.

Sub-Official, A.M.E.

1934

April 11

Spain

M. G. PARDO

Lieut.

Aug. 23

Madrid, Spain

LUIS LERIN

Aircraftsman

Aug. 23

Madrid, Spain

MANUEL G. LANZAS

2nd Lieut., A.C.

Nov. 7

Spain

A. S. LARRAZA

Lieut.

1935

Jan. 24

Saville Aerodrome

J. F. TUDELA

Lieut.

June 13

June 13

Banning, Calif.

June 24

Spain

June 24

Spain

J. E. BALSALOBRE

Lieut. F. A. ARENAS

Cadet, U.S.A.C.

RUIZ

Second Lieut.

F. HERREROS

Sergeant

SWEDEN

1926

Aug. 4

Malmstätt

NILS SODERBERG

Lieut., S.R.A.F.

1928
 July 4 Malmsslatt
 Aug. 14 Stockholm
 Dec. 7 Ljungbyhed

1930
 April 26 Stockholm
 Sept. 11 Stockholm

1931
 March 24
 Aug. 11 Malmsslatt
 Sept. 1 Ljungbyhed
 Nov. 23 Malmsslatt

1933
 July 7

1934
 July 6
 July 6

1935
 July 18 Sweden
 July 25 Malmstätt, Sweden
 July 31 Sweden
 July 31 Sweden
 Oct. 5 Ljungbyhed, Sweden
 Oct. 5 Ljungbyhed, Sweden

B. A. SJOBY
 Lieut., S.R.A.F.
 N. G. E. BILLING
 Lieut., S.R.A.F.
 FURIR CLAES BUREN
 S.R.A.F.

B. E. BEHN
 S.R.A.F.
 A. J. HENRIKSON
 Lieut., S.R.A.F.

B. G. E. BJUGGREN
 P.F.C., U.S.A.C.
 T. C. LINDEN
 Lieut., S.R.A.F.
 L. G. H. THUNBERG
 Lieut., S.R.A.F.
 K. PALANDER
 Civilian

H. VON SCHINKEL
 Lieut., S.A.F.

K. G. LINDNER
 Civilian
 S. NORDBORG
 Civilian

FURIR HENRIK SCHOLLIN
 NILS SODERBERG
 Capt., S.A.F.
 OTTO LUNIALA
 Lieut.
 FALTVABEL J. TAULU
 D. EDLUND
 Lieut.
 S. LUNDBERG
 Furir

U.S.S.R. (RUSSIA)

1927
 June 24 Moscow

1928
 Aug. 20 Moscow

1929
 Aug. 10 Moscow

1930
 April 15 Moscow

M. M. GROMOFF
 U.S.S.R. Air Service

V. PISARENKO
 U.S.S.R. Air Service

V. BUCHOLTZ
 U.S.S.R. Air Service

ALEXANDER KRAVTZOFF
 U.S.S.R. Air Service

TURKEY

1933
 Oct. 2 Eskisehir

1934
 Oct. 20 Diarbekin

ARIF (BEY) HICKMENT
 1st Lieut., T.A.F.

NOUREDDIN BEY
 Turkish Air Force

WEST INDIES

1935
 Oct. 2 Santo Domingo, W. I.

LLOYD W. EARLE
 Transport Pilot

YUGOSLAVIA

1929
 M. S. NOVAKOVICH
 Lieut., R.Y.A.

1930
 March 18 Novakoich
 May 15 Belgrade
 May 21
 May 22 Belgrade
 Aug. 30 Novi Sad
 Aug. 30 Novi Sad
 Sept. 11 Lenvun

1931
 March 10 Mostra
 June 10 Belgrade
 June 26 Mostra
 July 8 Mostra
 Aug. 17
 Aug. 30 Tagreh
 Sept. 18 River Drenin, Bosma
 Sept. 18 River Drenin, Bosma

1932
 Jan. 22
 Jan. 22

1933
 July 14 Ljubljana
 Sept. 7 Mostra

LIEUT. SKOJLJE
 R.Y.A.
 BALANC L. STANISLAV
 Capt., R.Y.A.
 IVO OSTRICH
 Lieut., R.Y.A.
 FRANC F. PIRC
 Capt., R.Y.A.
 AUGUST NERMAH
 Sub-Lieut., R.Y.A.
 DRAGUTEN DOLANSKI
 Lieut., R.Y.A.
 DROY VICOLITCH
 Reserve Officer, R.Y.A.

SCHERUGA ALOJS
 Sgt., R.Y.A.
 R. DEYANOVITCH
 Sgt., R.Y.A.
 R. MILOVANOVICH
 Sgt., R.Y.A.
 MIRKO MIHAJLOVITCH
 Lieut., R.Y.A.
 DIMITRY LJUMOVICH
 Sgt. Pilot, R.Y.A.
 LJUDEVIT AJICH
 Lieut., R.Y.A.
 DRAGOSAR SIMONITCH
 Lieut., R.Y.A.
 MOMTCHILLO PETROVICH
 Lieut., R.Y.A.

DRAGOMIR LAZAREVICH
 Lt. Pilot, R.Y.A.
 M. PETROVICH
 Lt. Pilot, R.Y.A.

MATIJA KRANJZ
 Sgt., R.Y.A.
 IGNATZ SKELETIJA
 Lieut. Pilot, R.Y.A.

1934
 June 5
 June 8 ALEXANDER J. STANOJEVICH
 Zemun Yugoslavia Air Force
 July 14 RISTA KOSTIC
 Aug. 24 BOSKO R. STANOJLOVIC
 Sept. 4 LJUBOMIR PETROVICH
 Sept. 22 JOVAN S. VUKEVIC
 Sept. 27 MILOS R. UZUNOVIC
 Novi Sad Lieut., Yugoslavia Air Force

1935
 June 5 VLASTIMIR J. MATOVIC
 June 28 MILIVOJ MURKOVIC
 June 28 LUKSIC MIHOVILJ
 July 26 RADMILOVIC DJORDJE
 Sarajwo Yugoslavia
 Aug. 9 ARSENIJE BOLJEVIC
 Yugoslavia Kapetan II

1936
 April 8 SPADIJER N. MILE
 Sarajwo, Yugoslavia
 June 9 LJ J. JANCIC
 Pec, Yugoslavia
 Nov. 28 MILIVOJ ZIZIC
 Belackva
 Nov. 28 ANDRIJA TIHI
 Belackva







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